THE LANCET.

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PHYSIOLOGY.

LECTURES
ON THE
PHYSICAL CONDITIONS
OF THE
TISSUES OF THE HUMAN BODY
AS APPLIED TO THE EXPLANATION OF
VITAL PHENOMENA.

Delivered at the College of France in 1834,

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LECTURE VI.

Miasmata, and the Vaporous Emanations in Contagious Typhus.—Hospital and Common Typhus.—Cholera not a disease of Miasm.—Effects of putrid Animal Substance in Vapour and in Liquid.—Cause of Yellow Fever.—Distinction between Disease produced by the Miasm of the Body and Contagion.—Avoidance of the Poisonous Vapour of Patients.—Effect of Prussic Acid Vapour on the Skin.—Resumé.—Quarantine Laws.—Contagious Diseases.—Itch, Syphilis, Measles, Scarlatina, and Small-pox.

THE unwholesome atmosphere which generally surrounds bogs, marshes, and other uncultivated places, will give you a familiar example of the fact mentioned in my last lecture respecting the effect of deleterious vapours on the lungs and skin; the emanations from animal and vegetable substances in a state of putrefaction give rise, as is well known, to various diseases of the most destructive kind.

These emanations are termed, in medical language, *miasmata*; for many years we possessed nothing but vague and uncertain ideas upon the nature of this agent, to which the most contradictory and ridiculous properties were assigned; but, latterly, we have acquired more correct and precise views of the subject; in fact, you may collect a quantity of this deleterious atmosphere or miasmatous exhalation, and, in a few hours, by the assistance of cold and other agents, you may condense the vapour, and obtain a considerable residuum of animal or vegetable matter, which has a tendency to run into putrefaction with the greatest rapidity. This has been done by several chemists, and the nature of miasmata thus perfectly demonstrated. You all know how unwholesome the wards of our hospitals become when typhus fever prevails in them, and when the patients are crowded together in great numbers. Under these circumstances the wards become charged with an atmosphere of a most deleterious nature, and the physicians, attendants, and all who approach the sick-bed, run the greatest risk of being attacked by the disease. On this account hospital typhus has been generally regarded as a disease of a highly contagious nature; but I shall have occasion to lay before you presently many facts which place the question altogether in a different point of view. In the mean time remark, that if you submit the air surrounding the bed of a patient attacked by (so-called) *contagious typhus* to experiment, you can prove that it contains a deleterious matter similar to that already alluded to. The vapours emanating from the patient may be condensed by the action of cold, into a liquid charged with animal matter of a highly putrid nature, and much more injurious than that procured from the exhalation of marshes.

Under other circumstances animal matter vaporizes in great quantities, and gives rise to disease of the most obstinate and fatal form in certain parts of America, in the neighbourhood of low, partially cultivated localities, or where the atmosphere has been corrupted by shores, neglected markets, and filth of all kinds allowed to accumulate for a length of time,—these exhalations give birth to a malady which has produced in various quarters the most frightful mortality. I

need scarcely mention to you the name of yellow fever, nor direct your attention to the peculiar circumstances under which that fatal disease is ordinarily developed. I would, therefore, lay it down as a general principle, that in all cases of the production or propagation of *yellow fever* or *hospital typhus* the atmosphere in which the affected individual resides is charged with putrid animal matter in the form of vapour.

This principle, Gentlemen, is not without its value in the practice of medicine; it enables us to distinguish diseases into those which are produced by miasmata, and those which are independent of that cause. On this principle, hospital typhus is totally distinguished from common typhus, occurring as the latter does in healthy situations, without any tendency to spread or affect those who approach individuals labouring under the disease. Why is hospital or jail-typhus so fatal an affection? and why has it the appearance of being a disease highly contagious, while in reality it is far from being so in the strict meaning of the word? Because the place, in which the patients are assembled together is charged with deleterious miasmata, the air surrounding them is in fact poisoned by the animal exhalations, and all who come within the sphere of its influence are liable to be operated on in a greater or lesser degree. *Cholera*, on the contrary, though still more fatal than typhus fever, and apparently connected with certain localities of situation, never presented the least trace of miasma. The history of the disease, its mode of progress through different countries, and in all seasons of the year alike,—finally, examination of the air contained in the wards where cholera patients have been crowded, leave no doubt on my mind that the cause of cholera is not a miasmatous exhalation. Turn your eyes now upon yellow fever, and mark the contrast. Yellow fever is a disease strictly miasmatic; it exists only in certain localities, in places favourable to the development of various exhalations of an injurious nature; it devastates one quarter of a town, while the rest are habitually free from it. If an affected individual be transported to a distant and healthy situation, he does not carry the disease with him, and the inhabitant of a quarter in which yellow fever is, as I may say, domiciliated, knows very well that by getting into a steam-boat, and travelling a few miles from home, he leaves all danger behind him. The Americans tried this principle upon a grand scale during the prevalence of cholera, but without success; they soon found it was in vain to travel from one locality to another in order to avoid the disease. It was either there before them, or did not long fail to arrive, pursuing that steady course which is one of the most remarkable points in the history of the disease. Cholera was thus proved not to depend on miasma, like yellow fever and other diseases of that class, which are characterized by the circumstance of being confined to peculiar localities, and of not being transmissible to healthy situations where the developing cause does not exist.

But before we proceed further, we have to ask and answer a question on which the application of the present subject mainly depends, viz., Is it certain that animal substances in a state of putrefaction are so highly deleterious that the least respiration of air containing this matter may be productive of dangerous consequences? I would answer this question in the affirmative, because I have seen the most severe accidents arise from the artificial introduction of putrid animal matter into the circulation of an animal, and, what is more to the present purpose, in some cases, besides the general symptoms of a dynamic, &c., the experiment has given rise to the vomiting of a dark-coloured fluid, exactly analogous to the black vomit which has been considered as peculiarly belonging to yellow fever.

This is a fact deserving some consideration, for it throws considerable light on the nature of yellow fever, and on the cause which produces that disease. If you take ten or twelve drops of a fluid, containing animal matter in a high state of putridity, and inject it into the jugular vein of a dog, the animal soon presents some remarkable phenomena. In the first place he shows febrile symptoms characterized by excessive prostration; the heart beats quickly, the respiration becomes very much accelerated, and at the same time the animal falls into a state of weakness and prostration which is very striking; the muscular power fails, he lies down on the ground unable to stir or make any effort. But the most remarkable phenomenon of all is, that after a short time he is actually seized with the black vomit, identical in the nature of the matter evacuated with that which is thrown up by an individual labouring under yellow fever.

Thus, Gentlemen, we are enabled to produce in the amphitheatre effects analogous to those arising from yellow fever when it attacks the human body, and to create at will the most characteristic symptom of that disease, by introducing putrid animal matter into the circulation. Here is an animal on whom we have tried the experiment (a large dog was led into

the amphitheatre), but as yet no very remarkable effects have been produced. Perhaps the matter injected was not sufficiently putrid; it was taken from the remnant of some brains which I had for a long time at home, preserved in spirits.

And here I would remark to you, that the dangerous influence of the matter is indicated by the smell, as if nature wished to furnish us with a means of avoiding pernicious miasmata. The worse the matter smells the more dangerous it is; and hence putrid matter exhaled by fish in a state of decomposition, which as you all know gives off a most abominable odour, is most fatal and injurious. The injected matter first acts on the intestinal canal; the animal exhibits symptoms of low fever, and is seized with a bilious purging; indeed you have the proof of this in the case before you, for the dog has just been affected in this manner (*laughter*); he is also feeble, and in an hour or two will probably vomit a quantity of dark matter, which, when examined, you will find to be altered blood.

This, Gentlemen, is a most important fact, and shows how necessary it is to be aware that the membranous tissues are permeable to vapours, which enter the circulation through this channel, and produce deleterious or wholesome effects, according to their different natures and composition. The most striking experiment of this kind was made by chance some time ago on the human subject. An immense quantity of fish was thrown out on the quay in some town in America, on account, as well as I remember, of some dispute between the proprietors and the custom-house authorities; in a short time the matter began to putrify, and yellow fever of a most violent character was at once developed in the neighbourhood. The surrounding atmosphere was here charged with putrid exhalations, which were taken into the circulation by the medium of the lungs, and gave rise to the same morbid phenomena as if the deleterious matter had been introduced directly by the veins.

It would appear from the history of disease in general, and from different experiments, that man is much more susceptible of infection by vapours than animals of a lower class. During the war in Spain, I made several experiments on this subject. I took a considerable quantity of stuff, arising from animal matter in a state of putridity, of which we always had abundance, and placed it in a tub, in which I enclosed animals of different kinds; they resisted the poisonous effects with a good deal of force; dogs confined in this situation did not present the same phenomena as if a putrid liquid had been injected into the circulation; they lost all appetite, grew thin, and ultimately died, but I never witnessed the production of black vomit from this mode of poisoning.

This subject, Gentlemen, requires further investigation, and the repetition of many experiments which should be conducted with the utmost care and caution; for, in physiology, we may be easily led to draw false conclusions from our premises. The elements of error are numerous, and we have not the same facility for correcting our mistakes as in physical or chemical experiments.

The question on which I have now dwelt is applicable to many points of medicine; thus it is now well known that typhus fever, though very fatal, is not a contagious disease; yet fifteen years ago, such was the prevailing opinion, and you would have been regarded as presumptuous, or extremely ignorant, if you were to have hazarded a doubt on the subject. Now-a-days we know very well how the disease is contracted; a friend, for example, goes into a typhus ward to see a sick patient; he approaches the bed, and remains for some time in the miasmatous atmosphere, taking in the poisonous vapour which exhales from the patient's body at each inspiration; at last the vapour penetrates the membrane of the lungs, and he feels as if struck with something; he has, in fact, taken the disease—that is, the poisonous miasm has entered the circulation, and will shortly produce its characteristic effects; but this is quite different from the received idea of contagion.

Again, when typhus fever prevails to any extent in large establishments, the physicians and attendants are usually attacked by the disease; I have lost many friends from this cause, and many of them have told me that as soon as they approached within a certain distance of the patient, they experienced some strange sensation, and were conscious of having contracted the malady. In these cases a single respiration of the concentrated miasm was sufficient to infect the individual.

The measures of Hygiene, which we should adopt, are easily deducible from the foregoing remarks:—If you would avoid contracting the disease, you must avoid respiring the poisonous vapour which surrounds the patient; and you may prevent its concentration; you may, to use a chemical phrase, so dilute the poison as to render it innocuous, by taking care to place only a few patients in the same chamber, and by adopting means to procure a free circulation of fresh air round the sick bed. This is a precept

which agrees equally with our theory and with experience. Do not encumber your patients, and avoid as much as possible respiring the unwholesome vapours surrounding them.

I shall now, Gentlemen, repeat the experiment which we made at the conclusion of the last lecture, in order to ascertain how far the skin of an animal is permeable to poisonous vapours, and we shall take every possible precaution to prevent any of the noxious vapour from mixing with the air which he breathes. This is a much larger and stronger rabbit than the former; he is enclosed, as you see, in this glass-bottle, with the head free, in such a manner that the vapour may have access to the whole surface of the skin, while it is prevented from escaping by the bit of oiled silk drawn tightly round the animal's neck and the top of the bottle. We now introduce some vapour of strong prussic acid into the glass, and shall wait its effects. They begin already to show themselves only two minutes having elapsed. The animal is now convulsed and extremely weak, but the dose has not been sufficient to cause death. From the observations which have been made during the present lecture, you cannot fail to perceive how the doctrine of the permeability of membranes to vapours may be applied to many points of medicine; it is a fact of the highest importance, and regards particularly several questions connected with the nature of contagion, which we shall discuss at length. But let us first look back for a moment.

We have lately had occasion to notice many circumstances in which the property possessed by membranes of being permeable to vapours, is applicable to various points of medicine. You saw how vapours pass through the animal tissues in the same way as substances in a solid or liquid form, and in many instances produce effects of an energetic nature on the animal economy. This fact has been demonstrated by several experiments, and by the consideration of many physiological phenomena. The fine membrane which constitutes the termination of the bronchial tubes exhibits the most striking example of this property, but we have every reason for thinking that it is not confined to the pulmonary organs alone. Some of the experiments which we last made were intended to ascertain whether the skin is permeable to vapours, and the result showed that the cutaneous tissue gives passage to vapours, like other membranes, but not with the same degree of rapidity, a modification depending perhaps in some degree on the presence of the epidermis.

We then passed to an examination of miasmata, which we considered as depending on the exhalations of animal and vegetable matter in a state of putrefaction.

If you examine the mass of air-vapour, or whatever it may be, which is supposed to contain the miasmatous germ, you find it physically composed of animal matter in the form of vapour; the particles indeed are excessively small, and suspended in a fluid, but you are able to reduce them to a palpable substance by the action of cold. These exhalations have a powerful influence on the human body. The action of miasmata is no longer a matter of theory, it is now well demonstrated. I have cited to you several facts which prove the deleterious power of putrid matter in a state of vapour, and also established this curious principle, that putrid matter communicates to animals a disease of the human body. I injected a quantity of fluid containing some animal substance in a state of decomposition into the veins of a dog, and reproduced at will many symptoms of yellow fever; the animal's respiration became hurried, he was seized with a low adynamic fever, and would certainly have exhibited the phenomenon of black vomit, had the dose of the poison been sufficiently strong.

I shall now proceed to follow up the consideration of animal vapours, for it is a point of the utmost importance in the practice of medicine to determine what diseases depend on the influence of miasmatous poison, and distinguish them from those which originate in contagion.

This is a question, Gentlemen, on which the most absurd ideas have prevailed for many ages; had they been confined to mere theory, we should not insist so much on the necessity of refuting them, but unfortunately the theory of contagion and non-contagion has given rise to the enactment of sanatory measures, at once the most severe and ridiculous. The laws of quarantine involve health, life, and property, in almost every clause; it therefore becomes a matter of high importance, both for the public and the medical practitioner, to examine upon what grounds such laws have been adopted, to separate what is useful from the mass of absurdity in which it is buried; and, above all, as I have before remarked, to establish some fixed principles by which we may distinguish contagious maladies from others not capable of being transmitted by contact from individual to individual, or transported from one distant place to another in vestments, articles of merchandise, &c.

We shall first examine the question in relation to the physical properties of membranes, and endeavour to ascertain how far the principles which have been developed in the preceding lectures may be applied to elucidate this difficult and interesting subject.

I would begin, by observing, that some diseases are undeniably and strictly contagious, such as *itch*, *syphilis*, &c. These complaints are communicated by contact, with the affected individual. You may produce the disease in a healthy person, by inoculating him with a particle of the morbid matter. The manner in which this takes place, in cases of *itch*, is not well known, and physiologists have not yet decided whether a peculiar animal exists in the morbid secretion, and reproduces the disease when applied to the skin of a healthy person. This, I say, is a disputed question; but we are, at all events, assured that the disease is communicable by contact. *Syphilis*, again, is a disease which may be communicated by the contact of an unsound individual. This, Gentlemen, is a fact too familiar to require any proof; and you are all well enough aware how you avoid contracting the disease, by taking certain precautions to prevent imbibition. We are not able to say precisely in what the affected individual differs from the healthy one; we do not know if the morbid particle be multiplied, and circulates with the mass of the blood, to be deposited in certain parts of the body, or whether it possesses the property of communicating to certain organs and tissues the power of reproducing a similar morbid product. All we know is that the individual has the disease, and that he has contracted it by contact.

There are other diseases, Gentlemen, which are not less contagious than the former, although they may be transmitted from one person to another without immediate contact. We have examples of this class in *small-pox*, *scarlatina*, *measles*, &c. Formerly it was thought that the saliva of the affected individual alone possessed the power of communicating disease, but this is a foolish idea; they are transmitted through the medium of the respiration. A person, for instance, goes into the atmosphere surrounding a patient affected with measles, and catches the complaint immediately. How is this? He respires air charged with animal exhalations from the body of the sick man; the poison is thus introduced into the economy, and soon produces its characteristic effect. This you see is a phenomenon strictly belonging to the permeability of membranes to vapours. We have an animal exhalation; we have an extended membranous surface, exposed to the contact of the vapour, and we have constitutional evidence that the exhalation has traversed the tissue. In advancing this proposition I do not attempt to explain the intimate nature of this vapour, whether it be a simple or component substance, an exhalation from the skin, or contained in the pulmonary transpiration of the patient; nor can I take upon me to say in what manner the morbid product communicates the diseases. I merely represent the fact to you as it occurs. A similar phenomenon takes places in *scarlatina*. This complaint, as well as the former, is communicated by the respiration, for we cannot inoculate either, by placing a portion of the morbid secretions in contact with the skin of a healthy person.

The case is different in *small-pox*, and I would say that the disease which is *par excellence* contagious, is variola. It may be transmitted by the respiration; if you go into the chamber of a person labouring under small-pox, you are liable to catch the complaint by breathing the tainted atmosphere; it is communicable by contact; the touch of a variolous patient has been known to affect another; finally, if a particle of the morbid secretion be introduced beneath the skin, the individual is seized with the disease, he is inoculated. Small-pox, therefore, is contagious in every respect. Perhaps even the blood of an affected individual may be capable of communicating the infection. We do not know whether this may be the case or not, for the experiment has not yet been made; but I have some reason for thinking that the affirmative of the question is the fact. I remember particularly the case of a woman who died at the *Hotel Dieu* some years ago, labouring under a severe form of this disease; on examining the body after death we found the blood greatly altered; it was more fluid than natural; several of the tissues were marked by large spots of ecchymosis, and the whole lining membrane of the trachea was imbibed with blood; she had, in fact, died in a state of asphyxia, and the alteration in the fluid had been so great as to render it unfit to support life.

Small-pox, therefore, I repeat, is a disease essentially contagious, and even the clothes of a patient retain the infectious property for a considerable time. Under certain conditions with which we are not well acquainted, it becomes epidemic, and then produces enormous ravages; one-fifth, one-fourth, of the entire population of a country has been destroyed. Since the introduction of vaccination, indeed,

the mortality of the disease has been considerably abated, but if, unfortunately, as we have some reason for believing, the prophylactic properties of vaccine matter should gradually decline, small-pox must again resume its original force, and require an attention on the part of the public and the physician proportioned to its danger.

Now, Gentlemen, mark the absurdity of those prescriptive measures by which our legislators would ensure the public health. Although so severe and fatal a disease, small-pox has been neglected in almost all our sanatory laws; 100 diseases, supposed to be more or less contagious, have been enumerated in the various regulations, yet you will find no notice taken of this complaint, which I repeat is, *par excellence*, THE contagious one, being communicable by contact, by respiration, and by inoculation; and I doubt much if any other disease comprehends these three circumstances. *Varicella* is also a disease of contagion, but as it is comparatively of small importance, we shall pass to a consideration of those maladies which are distinguished by the existing laws as contagious, and to which consequently all measures of quarantine &c. more particularly belong.

CLINICAL OBSERVATIONS

ON

VARIOUS DISEASES,

BY

MR. WARDROP.

OF THE TENACULUM.

SIMPLE as the operation of placing a ligature around the extremity of a divided artery may appear to the young surgeon, yet, in performing it, like all other mechanical processes, nicety and attention may be well bestowed. In many instances there are considerable difficulties to be overcome, arising either from the position of the bleeding vessel,—the quantity of blood in the wound,—or other accidental circumstances; and hence the surgeon, who is hurried or careless in its execution, will often find himself perplexed while performing this apparently easy operation. How often is pain much protracted by an unnecessary loss of time and clumsiness in securing the divided vessels! And how frequently have patients lost their lives from the inefficient manner, or from the total failure, of the surgeon in getting a ligature properly fixed around a divided artery!

Many of the difficulties in the usual mode of tying arteries are, I am persuaded, completely removed by the tenaculum about to be described. Though in offering it to the notice of the profession I am aware of the distrust which all practical men usually place in new inventions or new mechanical contrivances, such being too often as unworthy of notice as the endeavours to improve the *principles* of surgical operations themselves are deserving of every consideration. Indeed I would not have ventured to recommend this tenaculum, had I not myself, as well as many who have employed the instrument, been satisfied of its utility and superiority.

This instrument, as will be seen from the annexed outline, combines a tenaculum with a forceps. Whilst with one of the curved extremities (*a*) the mouth of the vessel is transfixed; by closing upon it the other extremity (*b*), the artery is firmly held between them, as by the points of a pair of forceps, and when closed, the catch (*c*) is propelled forward by a small spring (*d*), and thus the points of the instrument are immoveably closed upon the artery, where it is to be retained until a ligature is applied. When the bleeding orifice is thus secured between the points of the tenaculum, a ligature is very readily tied round the extremity of the artery. By examining the figure it will be seen, that when the tenaculum is closed, the two shafts gradually converge towards the extremities, so that the noose of a ligature placed round them, when drawn firmly, slips down towards the point (*a b*), and finally passes over it where it can be tightened, enclosing with great accuracy only that portion of the vessel which is immediately beyond the grasp of the tenaculum,—the points, when closed on one another, forming a smooth slightly convex surface. By again sliding the catch (*c*) backwards, both points of the tenaculum are at once separated without in the least disturbing the ligature.

For securing arteries deeply seated, this tenaculum will be found much more manageable than any of the common instruments. It transfixes both the vessel and the precise quantity of the contiguous soft parts desired, and no blood escapes from the artery until sufficient time is given to the operator for placing the ligature around the shafts of the instrument, and tying it on the vessel.

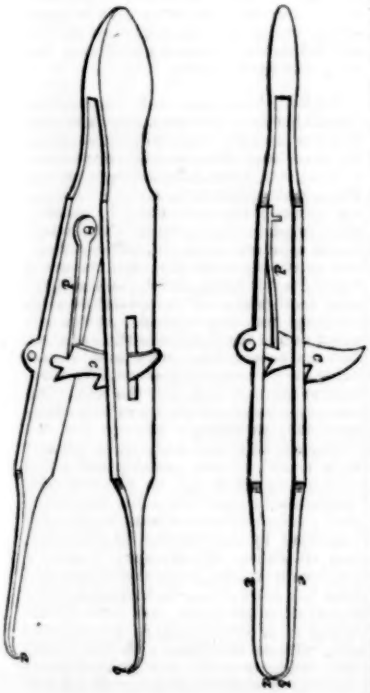
I have often thought, though I have never had occasion to employ it for such a purpose, that this instrument might be

advantageously used to stop a hemorrhage from a vessel (such as the internal pudic) so situated; that it is impracticable with the common tenaculum or needle to pass a ligature round it. When under such circumstances an artery has been secured, and so pressed between the points of the instrument that it no longer bleeds, and is so situated that the ligature cannot be applied, I can see no objection to allowing the instrument to remain a sufficient number of hours to permit the formation of a clot, and thus the artery is secured from future hemorrhage.

For the *torsion* of arteries this instrument is also admirably adapted; and one important advantage of its use as a tenaculum will be found in the circumstance that an assistant is unnecessary when using it, for if the mouth of the artery be once transfixed and secured between the points of the instrument, the operator can then himself leisurely tie the ligature.

It will be seen that the points of the tenaculum are in imitation of the ingenious tenaculum of Assilini, and the catch made in the forceps was a contrivance of Mr. Crampton, of Dublin, but which he applied as part of a pair of common forceps.

[This instrument, which requires great nicety in the manufacturer, may be had of Savigny and Co., St. James's Street.]



THE REMOVAL OF LIGATURES FROM ARTERIES.

It is not uncommon in wounds which have healed by adhesion, particularly those of amputations, for a ligature which had been employed to secure an artery, to get so fixed within the wound, that it cannot be removed by ordinary force, and I have known instances of the thread thus remaining in a stump for many months, and even throughout life. In such cases the ligature is prevented from making its escape, in consequence of the artery at the point where the thread was placed retaining its vitality, the ligature not having been drawn sufficiently tight. Hence that portion of the vessel which is beyond the ligature remaining organized, and adhering to the granulating surface in contact with it, the noose of the ligature is completely enclosed in a ring formed of living parts. Now, it is this ring which prevents the ligature from separating, and when the endeavours made to pull it away forcibly have failed, there has hitherto been no method of abstracting the thread but by a painful and even dangerous dissection.

A simple mode of accomplishing this, which I have successfully employed in a few cases, and have frequently recommended to others, has been to make use of pressure in such a manner as shall gradually produce ulceration or absorption of that portion of the artery which is enclosed within the noose of the ligature, and thus enable the ligature to escape. The process is extremely simple, and not attended with pain.

The two ends of the thread which compose the ligature are first to be separated from each other, and then a common goose-quill, or piece of wood, of the same form is interposed between them, and placed across the wound. They are then to be formed into a knot over the quill, which knot is to be drawn as tight as possible without creating pain, but sufficiently firm to keep the ligature constantly on the stretch. The tightness of the ligature is to be daily increased, which is readily accomplished by simply twisting the quill. The ligature generally sepa-

rates in a few days, without creating the least disturbance in the wound.

When in any wound a ligature remains longer than usual, it is an excellent rule at once to adopt this mode of separating it; for it frequently happens that a good deal of pain is given by pulling ligatures out with force, which is completely prevented by the simple process above described.

OBSERVATIONS ON THE

EFFECTS OF ARSENIC

ON THE ANIMAL SYSTEM, AND

RESULTS OF EXPERIMENTS

WITH THE

HYDRO-OXIDE OF IRON

AS AN ANTIDOTE.

By REGINALD ORTON, *Esq., Junior, Surgeon, London.*

HAVING twice observed in the present volume of THE LANCET, remarks on the efficacy of the hydro-oxide of iron as an antidote to arsenic, I was induced to make the following experiment to determine how far it might be relied upon. As there are some interesting facts resulting therefrom, I forward them for insertion, thinking they will not be found unworthy a place in the pages of THE LANCET. I shall first give a detail of each experiment, confining myself to the facts, as they occurred, while the animals were under the influence of the poison, and of the appearances presented after death. I shall then proceed with the inferences to which they give rise, and conclude with some remarks on the *nature* of the death resulting from arsenic.

Three rabbits were treated in the following manner:—

The first had full three grains of white arsenic given in the state of small granules.

The second was treated with a solution prepared by mixing six grains of powdered white arsenic with ten drachms of the hydro-oxide of iron, prepared according to the directions given at page 126 of this volume. I attempted to give half of this solution only, but, from the difficulty experienced in introducing it, the greater part, if not all, was lost. A second attempt was made with the remaining half, of which also a considerable portion was wasted. Some was, however, evidently swallowed.

The third was dosed with four grains of the poison, in powder, made into a bolus, with three scruples of the oxide of iron.

They were at liberty in my room, both before and after taking the arsenic, and, when they had familiarized themselves with the furniture, seemed much to enjoy the run of the smooth carpet.

First Experiment.

The first was treated about twelve minutes before four p.m., but evinced no sign of the effect of the poison till four o'clock, when she became dull and moped. This lasted for some time, but towards evening (about seven o'clock) she perfectly recovered, and, not a little to my surprise, I found that about ten she had again commenced her gambols on the carpet. At half past ten she was put into a basket apparently quite well. Next morning, however, at eight, I found her looking miserably ill, but still there were not evinced any signs of pain; she only moped. About ten she became much worse, and died at ten minutes to twelve (twenty hours after taking the poison) in great agony, which was expressed by violent contortions and distressing screeches, for some time before death.

Morbid Appearances.—I immediately opened her for examination, and was surprised to find the heart still contracting; on close inspection, however, this action, I found, was confined to the *right auricle*. These contractions were not mere fluttering actions of the part, but full, decided, and complete contractions. The whole viscus appeared distended. The contraction of the right auricle went on not a little to my surprise, and thirteen minutes after death was more powerful than when the chest was first opened. At ten minutes to one the action was still going on, but the contractions were now varied, being at one time rapid, at another slow. At four minutes past one, the action became confirmed and slow, and thus continued till twenty-eight minutes past one (being one hour and thirty-eight minutes after death). I am perfectly aware that such an assertion will be received with scepticism by my readers, and am, therefore, rejoiced at being able to support my statement by the testimony of witnesses; one of whom (Mr. Annesley junior, a gentleman residing in the same house, and who has allowed me to make use of his name) noted the time. Not only did he, but three or four members of his family also, witness the fact, and, I am sure, will willingly verify my statements. I noted particularly the *manner* of the con-

traction, and found it to commence at the inferior and right side of the auricle, and thence proceed to the upper and left side, the action being much more powerful at the point first indicated. Spasmodic action of the muscles of the face also continued for a considerable period, but I was so absorbed in observing the heart, that I omitted to take the time. The two cavæ, the jugular and subclavian of each side, the azygos, in fact all the venous system of the parts, were charged with *black* venous blood. The lungs were perfectly sound, but collapsed in an extraordinary manner, and shrunk up towards the upper and back part of the thorax; both the pulmonary arteries and veins were charged with venous blood. I now removed the heart, and, on inspecting the cavities, found the two auricles and the right ventricle distended with blood of the same character; the *left ventricle* was perfectly empty, and as clean as if it had been well washed. In this, animal coagulation had not taken place, owing, I think, to the short time (not two hours) between death and the examination of the parts. The thoracic aorta and its branches, the subclavians and carotids of each side, were devoid of the least portion of blood. The cavity of the abdomen presented, on external inspection, a sound liver, distended stomach; pylorus closed, but not violently; small intestines, particularly about the middle of their course very vascular, much corrugated, and highly injected with *florid* blood. The large intestines, and the peculiar enlargement which exists between the large intestine and rectum in the rabbit, appeared healthy; the rectum was cordy and rather puckered, and just where it enters the pelvis there existed an intus-susceptio, which was evidently recent and was very easily rectified; the bladder full, but healthy,—if any thing, it was slightly vascular; uterus *inflated*. On opening the stomach, I found the distention to be caused by a large mass of food, round which the viscus had violently contracted, and this formed, when laid open, a mould of its cavity. On washing this away, I saw only a very slight blush of redness near the cardiac opening; the mucous coat was, however, perfectly disorganized, and came away, in large patches, when slightly touched with the finger. I was much surprised to see only such slight marks of inflammation of the stomach. The small intestines contained only a little matter, somewhat like olive oil. The coats were, however, healthy, and no abrasion took place on rubbing the mucous tunic. The rectum presented nothing peculiar internally, and was empty. The cava and vena portæ were distended with blood. The aorta and its branches were perfectly empty.

Second Experiment.

The second animal, which took the arsenical solution with the oxide of iron, as above stated, was dosed at ten minutes to four p.m. It sneezed, or rather made violent expirations for some time, which seemed partly to relieve it, but it still evinced symptoms of great uneasiness and distress. At half past ten it was put into a basket for the night, in which I found it dead at eight a.m. the following morning. The body was distorted, stiff, and cold. It had been much purged, and there was a quantity of fluid, I conclude urine, under the basket.

Morbid Appearances.—On examination, I found in the *neck*, great congestion of the jugular subclavian veins, and all the small vessels leading to these. The carotid and subclavian arteries were, as well as their branches, empty. The tube of the trachea was almost obliterated by adhesive bands, the effect of a high degree of inflammatory action set up by a quantity of the poisonous fluid which, it now became evident, had passed the glottis. The œsophagus was collapsed, empty, and in every respect healthy. In the *chest*, the pericardium was found to contain a considerable quantity of transparent fluid; this was lost by an accidental puncture of the membrane. The heart was distended and plump, and the whole of the organ looked blacker and more injected with blood than were those of the other animals which I examined. Both auricles, the superior and inferior cavæ, were gorged with black venous blood in a state of coagulation; so also were the pulmonary *arteries and veins*. On opening the ventricles I found the *right* one plugged with a firm coagulum of blood; the *left* one empty, except a point or two of coagulated blood, about the size of a pin's head, entangled in the muscular interstices of the cavity. The thoracic aorta had a coagulum of blood in it, but was in no way distended; the abdominal aorta was afterwards found collapsed and empty. The lungs were vascular, full, and presented on their external surface, patches, as of extravasated florid blood. In cutting into them, I found a considerable quantity of the poison (rendered evident by its admixture with the red oxide of iron); the largest quantity was found in the left lung, particularly towards the root and lesser lobe. In the right lung, also, at the same point, there was a little of the poison to be seen. I now found that what I supposed to be extravasated blood, when viewing the lung externally,

was, in fact, particles of the red oxide showing through the delicate pleura. I examined particularly if any of the poison had been carried by the circulating blood to the left side of the heart, which, I thought, might possibly have occurred, as the mucous lining of the lung appeared, in some places, destroyed; I could not, however, detect any. All the small veins of the thorax, as well as the internal mammary and vena azygos, were distended with blood, while the arteries were empty and collapsed. In the abdomen, I found the liver interspersed with white scirrhous-looking spots, and evidently under the influence of chronic disease. The stomach distended with food, round which it was firmly contracted. The pylorus constricted, so as to give the appearance of a ligature on the commencement of the duodenum. The duodenum and small intestines appeared healthy, and were found empty (except a little yellowish-looking mucus), which was extraordinary when the stomach was so gorged with food. On opening the stomach, I found that the food formed a firm consistent mould of its cavity. On attempting to raise the coats from this alimentary bolus, I succeeded only with the two external, the internal or mucous tunic adhering to the food, and coming away in large patches. The bolus was spread over with the poisonous matter at the cardiac end, and particularly near the œsophageal opening of the stomach. The corresponding parts of this viscus were abraded of their mucuos tunic, highly vascular, and at one point there was great loss of muscular structure, amounting almost to perforation. The whole surface of the mucous coat came away with the slightest touch. The internal intestinal coat, through its whole length, was healthy, and would bear handling; the arteries leading to them were empty; the veins, particularly the small ones, contained blood more florid than any I had met with in this or either of the other animals. The large intestines, through their whole course, contained alimentary and fecal matter, but were in no way inflamed. The bladder was distended and slightly vascular. The testes were shrunk almost to a cord, and drawn up towards the abdominal ring. The vascular system of the abdomen was precisely the same as in the last animal; arteries perfectly empty and collapsed; veins highly distended with black blood, in a state of coagulation, except those leading from the coats of the small intestines, which, as I have said above, contained *florid* blood. I found considerable disease (chronic enlargement) of the mesenteric glands.

Third Experiment.

The third animal had a bolus of three grains of arsenic with three scruples of the oxide of iron, at 5 o'clock. He did not seem to suffer, was put away at half past ten, but was found dead in the morning at eight o'clock.

Morbid Appearances.—It would only be waste of time to dwell on the appearances of this animal; suffice it to say, that like the two last, there was *venous* congestion of the whole body; similar congestion of three cavities of the heart, and emptiness of the fourth (namely, the left ventricle); the lungs collapsed and shrunk, as in the first animal; both the pulmonary arteries and veins highly congested; the stomach (here also again distended with food) showed, internally, that more inflammatory action had gone on than in the two last animals; the pylorus *firmly* constricted; no blood in any part of the aorta; the vena portæ so congested that the slightest touch of the scalpel divided its coats, and gave passage to a firm coagulum of black blood; the bladder contained urine in some quantity.

The brain, in each, was to all appearance sound, but, as far as I could judge, exsanguineous; there was certainly no congestion. In one (that to which pure arsenic was administered) there was a little vascularity at the base, but so slight, that had it not been contrasted with the other brains, I should not have observed it.

I regret not having paid attention to the thoracic duct. I looked for it, rather superficially, but not succeeding in my search I gave it up under the impression that it would be so small that I should learn nothing satisfactory unless with considerable loss of time.

The stomach of each animal, almost immediately on being laid open, by a tonic contraction plicated itself into irregular folds. This occurred in two, while they were in cold water; the third I left exposed to the air only, but with the same result. When these plicæ had once formed it was impossible to remove them, by tension, without tearing the coats.

General Remarks.

I now come to the deductions which I have drawn from the symptoms and appearances presented by these animals.

First, I would call the attention to some facts which are both pathologically and physiologically interesting. It will be seen that in each animal the pylorus was constricted; in two (the 2nd and 3rd), violently so. In these two it will be perceived that death was much more sudden

and that the intestines were not affected. In the first animal death was lingering; the poison had passed the pylorus, and produced its effects on the small intestines. Here we see the physiological fact of a kind of sentient, or, if I may so term it, *recognising power* in the pylorus, of those substances which are inimical to life; and we perceive, also, in its contraction, an effort to confine the action of the poison as much as possible to one point, and thus prevent the dangerous consequences of exposing a large surface to its influence. This contraction cannot be attributed to inflammatory initiation, as there were slighter marks of inordinate action at this, than at any other points of the stomach. In the animal in which the pylorus was less constricted, we see the effects of gradual loss of power by the lingering death which it died. The bladder was *much* distended in two of the animals, and full in the third, showing that even after death the action of the sphincter vesicæ had been kept up. I may here mention, that the *secretion* of urine would appear to have been increased, as there was a considerable quantity of fluid under the basket, independent of that with which the bladder was found distended. From this it would seem that the kidneys, as well as the bladder, had come under the influence of the arsenic.

Secondly, I would point to the circumstance (which, though known, has, I think, never been sufficiently insisted upon) that arsenic exhibits a peculiar disposition to attack mucous surfaces, or, at least, organs lined with such tunic. We know that arsenic, applied externally, causes death, not by its *local* action, but by the inflammation it establishes in the alimentary canal. Here we have an instance of its *elective power*, if I may be allowed such a term. Again, the urino-genital organs are the seat of great derangement in most cases of poisoning by arsenic, however it may be introduced into the system. This is seen even in the cases I have given, in which it will be found that those organs were affected. Its action on these organs can only occur by the same *elective* power which I have mentioned above. Lastly, I am inclined to refer to the lungs as another instance of this fact, but, as I had not, at the time of examination, anticipated the train of reasoning to which appearances have led me, I am sorry to say I have at present only presumptive evidence that such is the case. I shall endeavour, when speaking of the *nature* of death by arsenic, to show that it commences in the lung, and shall then again refer to this subject.

Thirdly, I would advert to the *state* of the blood; in the two animals in which time was allowed, it was firmly coagulated. This is a fact strikingly at variance with the assertion of Sir B. Brodie, and some other writers, who state that coagulation does not take place in poisoning by arsenic. In the animal in which coagulation had not occurred it was owing, I think, to the short time which elapsed between examination and death.

Fourthly, I infer that the hydro-oxide of iron is not to be relied on as an antidote. 1st, because the animals to which it was given died. 2ndly, because they both died earlier than the one which had arsenic alone. 3rdly, because, in each case, as violent inflammation was set up as if the pure poison had been administered. I am aware that objections may be raised to my experiments. It may be said that one animal died from the entrance of the fluid into the lung. I am willing to allow that this might be the cause of death, but still, had the oxide been of any value, it ought to have prevented the occurrence of those inflammatory marks which were to be seen in the stomach of this animal, and which were sufficient, independent of the pulmonary derangement, to cause death. The third animal, it may be objected, had not sufficient of the antidote to counteract the poison; and it may be said, died earlier than the one which had pure arsenic, because it had a larger dose by a grain. It ought not, however, to have been so, even under these circumstances, as it was a larger and more healthy rabbit, consequently could bear more, and, besides, some portion at least of the poison should have been neutralized, in which case it is natural to infer a less speedy death and slighter marks of inflammation than absolutely existed. I do not wish to stay inquiry into the subject of the efficacy of the antidote, as I am willing to allow the chances of fallacy in my experiments; I would only caution those who may be called to cases of poisoning by arsenic, not to rely on this remedy till further research and experiment have proved its power.

Fifthly, I now consider what appears to me to be the most interesting part of these experiments, viz., the *nature* or *manner* of death caused by arsenic. It is very evident that its first action is inflammatory, and confined to the alimentary canal, but that says nothing as to *how* death is caused. Is it through the cerebral or nervous, the vascular or the pulmonary systems? In all probability one or more of these is implicated. Then which is it? Is it the nervous? Symptoms and appearances answer, no. There is no cerebral derangement; no delirium; no coma; no paralysis, to draw the attention to this system during life. Nor are there any appearances, after

death, to indicate that this has been the seat of any inordinate action, as may be seen from what I have said regarding the appearances of the brain. There is, moreover, no loss of nervous influence in the muscular system, for we have seen the stomach firmly contracted, the pylorus constricted; so also was the sphincter of the bladder, evinced by that viscus being distended. The peculiar corrugated appearance which was assumed by the stomach when washed, and which I have before described, also shows that there was no loss of power. It is not, therefore, in the nervous system that death *commences*. Is the vascular system implicated? Yes, because we find, during life, a small, quick, feeble pulse; heart fluttering; clammy cold surface, the concomitant of internal congestion. After death, as I have given in the cases above, we find marked *venous* congestion, and a perfectly empty state of the *arterial* system,—the heart loaded, in three cavities, with black blood, while the fourth cavity is perfectly empty. But is this the only system implicated? No. The respiratory organs are deranged during life, as is found in the human subject by the dry state of the pharynx and *larynx*, and the peculiar *hoarse voice* of the patient. After death, the lung, according to the above experiments, is in an extraordinary manner collapsed, and its circulation deranged, as we find the pulmonary veins conveying, contrary to their laws, *venous* blood, and the left auricle, also, loaded with a similar fluid. It may be said that the lung was not collapsed in one case, but this inconsistency in appearances may be easily explained away when we reflect that it was in a state of high inflammation, from the absolute contact of the poison, and, moreover, there was even a mechanical obstruction to expiration (and, consequently, to perfect collapse) in the obliterated or, rather, impeded, state of the trachea, the passage of which was intercepted by adhesive bands.

I am inclined to infer from these *facts*, that death in such cases is, ultimately, the result of asphyxia, and it appears to me that the establishment of so much is all that can possibly be done, with our present knowledge of the animal economy. How, or why, arsenic should cause asphyxia, or why it should even cause inflammation, is a point beyond our present powers. The consideration, however, of the state under which these animals were found, is one worthy of attention, as showing some points connected with asphyxia, as well as indicating that death from arsenic is the result of such a state of the pulmonocardiac system.

We find the venous system, both cavæ, the right auricle, the right ventricle, and the pulmonary arteries, distended with blood of natural quality, although greatly increased in quantity. In one case (and we are perhaps justified from it to infer that it occurred also in the others), we find the right auricle making unavailing attempts to drive on the current of blood, which it is prevented doing by the congested state of the right ventricle. But why does this *ventricle* cease to contract when under the influence of its natural stimulus? Because it is congested, *distended*, owing to the congested state of the pulmonary artery. And why is this congested? Because the lung is *collapsed* and has ceased to carry on the circulation, as also to perform its office of respiration. Respiration had evidently ceased under peculiar circumstances, evinced by the perfectly empty state of the lung, and its collapse. But had the circulation ceased at the same time? I should infer not; because, in one case, a part of the heart was found contracting even after death, although respiration had long ceased; and, moreover, there was evidence of the circulation of unarterialized blood in the pulmonary veins and in the left auricle, which were both highly congested. The question now comes to this, Did circulation pause here, and if so, why? Why did not the left auricle empty itself, by its natural and easy passage, into the left venticle? Was it because it was deprived of the power of contracting by the presence of a fluid to which it was unaccustomed, or was it because the ventricle would not admit of such fluid? It would appear that circulation did cease at this point, namely, the left auricle, and it ceased here because the left ventricle would not admit of a fluid to which it was unaccustomed, and which was unnatural to it. That it would not admit of it was indicated by two circumstances, namely, the empty state of the cavity, and the state of contraction under which it was found. It appears probable (particularly when we remember that, in one case, the thoracic aorta contained a portion of *venous* blood) that the left auricle had passed a portion of black blood into the corresponding ventricle. This blood, being either too stimulating, or the stimulus being of such a different nature as to be intolerable to the ventricle, caused violent contraction of its strong muscular parietes. (This is a fact which militates strongly against the idea of Dr. Goodwin, who states, that venous blood is not sufficiently stimulating to excite the action of the left side of the heart.) This last effort of the ventricle effects the displacement of the venous blood it contains,—

action ceases, and it would seem probable (from the contracted state of this cavity of the heart) that a constriction of it continues. The supply of blood to the brain ceases, its vivifying principle is lost, and death ensues.

It would appear then that death *commences* in the lung. The consequence of this is the supply of an improper fluid to the left side of the heart, which sets up an action that at once checks the arterial circulation. The brain is deprived of its blood, of its vivifying principle, and dies. And, lastly, the action of the right side of the heart ceases, first, because it cannot overcome the congestion which exists in the lung and left side; and secondly, because it is deprived of its nervous influence by the death of the brain.

I cannot, in any way, conjecture why the lung should thus show a tendency to sympathize with the alimentary canal, unless, perhaps, we allow to arsenic the elective power for mucous surfaces, to which I have alluded above. It seems to me a legitimate analogical conclusion to infer, when a predilection is shown by any poison for organs characterized by some peculiarity (such as is seen in those lined by mucous surfaces), that the predilection is caused by the peculiarity of structure. When, therefore, an organ, thus peculiarly constructed, comes under the influence of a drug possessing a peculiar predilection or elective power, we may safely conclude, that it is owing to the structure of the part that it becomes influenced by the medicine. Knowing arsenic (even when introduced through the skin) to exert a peculiar influence on the intestines and urino-genital organs (both which are lined by mucous membrane), I conclude, when I find the lung attacked, that it is owing to the same peculiarity of structure, and hence I infer that asphyxia is set up by some unknown action of this poison on the lining of the lung.

Allowing such an explanation of the phenomena of death by arsenic, we must see, that there is a species of asphyxia depending on none of those circumstances which generally give rise to it, namely, a deteriorated state or poisonous quality of the air, or an impediment to its admission into the lung,—a species of asphyxia depending on the vital principle of the pulmonary system, which being lost gives rise either to an inability to receive or else to make use of the air which is presented to it.

There are other circumstances connected with these experiments to which I would willingly direct attention were I not apprehensive of trespassing on the pages of this Journal. For the present I shall confine myself to these remarks, and as I intend prosecuting inquiries of this nature still further, I shall defer more minute communications till such time as I am able to draw more legitimate conclusions from a more extended range of observations.

2, Charlton-place, Dover-road,
Nov. 1st, 1834.

CARBONATE OF IRON.

To the Editor of THE LANCET.

SIR,—If you dare have further communication with a man who does not write his name legibly, you will oblige me by giving a place in your very useful Journal to the following case. I am, Sir, yours respectfully, WM. JEAFFRESON,
Surgeon, &c.

Framlingham, Nov. 1, 1834.

A lady, aged 86, applied to me in Jan. 1832 to be relieved from severe forcing pain in the lower bowel, of which she had suffered daily paroxysms for more than *fifty* years, and during this period had consulted many medical men, and tried various remedies without benefit.

Believing the disease to be proctica spasmodica, or synclonic spasm of the lower bowel and adjacent muscles, and having seen the good effect of large doses of carbonate of iron in several cases of chorea (as recommended by Dr. Elliotson), I prescribed a drachm to be taken thrice daily mixed in treacle. My patient had taken this remedy only four days, when the pain was completely removed; but as it had existed so many years, I thought it right to persevere for several weeks. This old lady, on the 31st of last July (in her eighty-ninth year), had a severe attack of herpes zoster, and while convalescent, had for a few days a return of the pain, which, however, was again quickly removed by the carbonate.

TRUSS-PADS.—*To the Editor.*—I beg to offer the following suggestions for the improvement of the common truss. Let the pad, instead of the usual material, be made of thin caoutchouc or Indian rubber, and afterwards filled with water and closed. As a force exerted on a fluid is equally distributed throughout it, a truss of this description would, I conceive, produce the same, or nearly the same, pressure upon every part to which it might be applied, and would, consequently, be better adapted for the relief of hernia than that at present in use. I have the honour to be, Sir,

9th Oct., 1834. W. H. O.

CATARRH OF THE BLADDER.

CAUTERIZATION.—CURE.

M. Lallemand, professor at the school of Montpellier, has lately employed the potential cautery in cases of vesical catarrh. We extract the following from the September No. of Broussais' Journal.

Case 1.—*Blennorrhœa.—Vesical Catarrh.—Cauterization of the Neck of the Bladder.—Penetration of the Caustic accidentally into the Bladder.—Cure.*

A man, forty-eight years of age, had blennorrhœa in 1803; he was cured in three months. In 1825 he was received under the care of M. Lallemand, with symptoms of chronic catarrh of the bladder; great desire to make urine, difficult and painful emission of the fluid, which was thick, troubled, and readily decomposed. After some preliminary treatment, on the 26th of August a porté-caustique was introduced into the urethra, and cauterization practised at the prostatic region: this produced no change in the nature of the urine. Baths; emollient drinks.

27, 28. Diminution of the pain; urine improved in appearance; some eschars come away. The patient seems better, but urine still has the odour of rotten flesh.

10. New cauterization; during a motion of the patient, the porté-caustique entered the bladder.

11, 12, 13. Urine passed very frequently; severe pain; fever.

14, 15, 16. Some eschars mixed with the urine, which is very turbid. From this day the state of the urine improved; the fluid contained merely some mucosities, and on the 29th it had recovered its natural appearance and quality. The patient demanded to be cauterized a third time, but M Lallemand refused, and he left the hospital perfectly cured.

Case 2.—*Blennorrhœa.—Vesical Catarrh.—Purulent Urine.—Cauterization.—Cure.*

In 1827 a commercial traveller, twenty-seven years of age, placed himself under the care of M. Lallemand. To the age of twenty the patient had been violently addicted to masturbation, and after that to carnal intercourse with females. He had frequent attacks of clap, which he neglected, but after some time he began to feel pain above the pubes. He had frequent micturition; the urine came away drop by drop, and was mixed in abundance with purulent mucus. He was first treated with leeches to the perineum, baths, vegetable diet, &c., for forty-two days. These means failing, M. Lallemand, who had been rendered bold by the last case, cauterized a great extent of the mucous surface of the bladder itself. A complete retention of urine at once set in, and lasted for thirty hours in spite of baths, leeches, and lavements. On the following day the patient passed a few drops of urine in his bath, and in the evening the bladder emptied itself. He passed a good night, and next day the pain was nearly gone. From this moment the amelioration was rapid; the desire to make water became less frequent; the sediment diminished, and in twenty days after the cauterization the man was cured.

REMARKS ON

ANIMAL ELECTRICITY.

Woollaston was the first who attempted to explain the secretions by electro-chemical phenomena. M. Charles Matteuci has obtained with the pile, fluids analogous in their chemical nature to those of the kidney and liver. He also demonstrated how, when a metallic salt is introduced into the circulation and decomposed, that the oxides pass to the bile and the acids to the urine; but this does not prove an electric state of the secreting organs. In the beginning of the present year (1834) M. Double succeeded in demonstrating an opposite electric state of the skin and mucous membrane of the mouth, and found very energetic electric currents between the stomach and liver of animals. This is a constant fact, which he explains by the action of acids and alkalies separated in the different organs. M. Matteuci, on the contrary, regards the acids and alkalies as the production of an opposite electric state in the secreting organs. It is easy to put M. Double's theory to the proof, for if true, the electric current should exist after the death of the animal, as the acids and alkalies remain. For this purpose M. Matteuci made some interesting experiments on a rabbit. The stomach and liver of a living rabbit being brought into communication by a galvanometer, a deviation of from 15° to 20° was produced. The nerves and vessels which pass through the diaphragm were now cut through, and the deviation was immediately reduced to 3° or 4°. When the animal's head was cut off no deviation could be obtained, or a very slight one, by introducing a metallic wire into the spinal marrow. When a more sudden death was

obtained, by prussic acid, the deviation as suddenly disappeared, though the acid and alkaline nature of the fluids in the stomach and liver remained unaltered. It therefore remains proved that these electric states exist and are produced during life alone.

But how is this electric current produced, or by what organs conducted? In Magendie's journal M. Panellet says he could never observe an electric current on touching the nerves with the platina extremities of the galvanometer, but M. Matteuci has latterly (*Annali del Regno Lombardo-beneto*) seen an electric current by connecting with the galvanometer the two divided extremities of the pneumogastric nerve; however, on repeating his experiments with more care, he has not been enabled to make the current pass from the nerve and muscle of a frog to the galvanometer; the author therefore concludes,—

1st. That opposite electric states exist in the living organs.

2nd. That the secretions probably depend on these states.

3rd. That we are not acquainted with the organs producing or conducting this electricity, and that the secret should be sought for in the organization of the torpedo.—*Jour. d l'Institut.*, No. 76.

THERAPEUTIC AGENCY OF

ELECTRICITY AND MAGNETISM.

We are probably upon the eve of an immense addition to our knowledge of mundane forces; the various physical agents are connecting themselves daily by new links. The recent progress of electrical science is, in this respect, the most important of any; and it must acquire value in the eyes of medical readers from the applications to medicine and physiology, of electricity, as existing in its three remarkable conditions. The effects of the machine, of the battery, and of the recently discovered currents of low tension over man and other animals.

Dr. Fabré-Palaprat has also obtained successful results from the process of Marianini (alluded to in the last number of The Lancet, page 200). By means of the balance-spring of a time-piece, skilfully put in connexion with the wires of a galvanic battery, he gives shocks more or less rapid to the person submitted to its action. From a great number of observations, he has recognised marked effects in cases where there was atony or debility in the functions of organs, without any lesion of tissue or inflammation; in lymphatic engorgements, for instance. He has also used the calorific effects of the pile to produce *internal moxas*. He introduces into the part he wishes to disorganize, a platina needle in communication with one pole of a very strong battery, while the other pole communicates with the body. If the current be sufficiently intense, it heats to whiteness the platina wire, which burns the organized parts in contact with it. At the end of a few days, an eschar in the form of a tube is produced, and may be easily withdrawn. It is evident that this plan should be very cautiously employed.

M. Orioli, one of the most distinguished philosophers in Italy, has published some theoretical considerations on a new method of modifying the laws of life, by changing the electrical condition of the living parts. He remarks that as it is now proved in *inorganic* chemistry, that the influence of electrical conditions produces changes in the *chemical* properties of bodies; so this effect should equally be produced in *organic* chemistry, and that if living parts do not present the same play of affinities as dead substances, this difference should arise from a peculiar electrical state in the former, differing from that which generally exists in bodies destitute of life. At present (says he) most physiologists believe that life is the result of an action of piles skilfully combined and perpetually in action, so that every organ is an electrical machine, all these batteries having such a reciprocal relation, that the instant life ceases, the electrical actions cease to have the faculty of being produced. In accordance with this view, such living piles, put in action by an unknown cause connected with vitality, should produce a positive or negative polarity in parts where it would not have taken place independent of voltaic action. There should result, where those poles are situate, secretions, excretions, and peculiar modifications, which cease from the instant that the electrical action is destroyed.

As we can annihilate the action of seawater on copper by rendering that metal electro-negative, so we can change the nature of secretions in animals, by reversing the polarity of the organs which furnish them. The stomach, for example, secretes acids, it is then naturally positive. If this secretion be too abundant, we must develop more powerfully an opposite electrical condition. Similarly when the kidneys secrete too much uric acid, and produce calculi, they must be rendered negative.

M. Orioli advises, that before seeking to apply electricity to therapeutics, the nature of the secretions should be studied in order to develop in the secreting organ an electrical state proper to determine contrary effects. These secretions are *acid*, or *alkaline*, or *neuter*; if they be acid or alkaline, there is no difficulty: if they be neuter, there should be applied to the diseased part, the pole of a name contrary to that characterizing the part in its normal condition. For this purpose he proposes to apply suitably to two parts of the body deprived of epidermis, two disks, one of zinc, and another of silver, communicating together by a wire of metal, and to maintain them in their places for days, weeks, or even months, only cleansing them occasionally. We shall not enter further into the details of this method, which must vary with the nature of the individual case, as our object is only to illustrate his principles. According to that distinguished philosopher, we may employ this method in the interior of the bladder, by introducing a sound, the extremity alone of which should be of a conducting material, and the remainder covered with an insulating varnish. This sound communicates with one pole of a voltaic apparatus, while the other is put in connexion with the loins. He states, that we can succeed in that way in attacking calculi, and decomposing them more simply than with any other apparatus. If the observation of Mansford be true, that the wound in connexion with the negative pole tends always to cicatrization, it would be no doubt possible to apply this fact to the cure of certain inveterate wounds and ulcers, by putting them in communication with that pole. - *Dublin Med. Journal, Nov.*

RABIES NOT COMMUNICABLE

BY BITTEN ANIMALS.

WITH REMARKS ON THE DIFFERENCE BETWEEN THE CONTAGION OF RABIES AND OTHER DISEASES.

By M. Augustin Capello, *of Rome.*

In the *Archives Générales des Médecine*, July, 1834, there is an analysis of two treatises on rabies by the above-named gentleman, in which he maintains that rabies, after its first transmission from one animal to another (and without an exception so far as the genus *canis* is concerned), loses its venomous property, ceases to be a contagious disease, and cannot be farther communicated. He produces several facts in supposed confirmation of this.

Case 1.—In the district of Caserano, near Tivoli, a dog, affected with *spontaneous rabies*, bit a young man named Dominique Giaco, 24 years old. A few drops of blood escaped from the wound, which healed, and he seemed to be in perfect health. An ox had been bitten at the same time, and the dog was lost sight of. Three days after the bite, the ox exhibited symptoms of rabies; he bit several animals of his own and other species, and was at length shot. None of the animals bitten by the ox became rabid. The disease of the ox so alarmed the young man, who had been bitten at the same time, that, notwithstanding he seemed to be in good health, he determined to submit to a course of treatment. Twelve leeches were applied to the part, and lotions of hydrochloric acid were applied four times in the day, according to the method of Wendelstadt. The actual cautery was also applied, which enlarged the wound to such an extent that it did not afterwards heal. Four months passed, and it was thought that all danger was over, when he became melancholy, and was continually weeping. Hydrophobia was manifested, and reached its height in spite of every treatment. In this miserable state he was taken to the hospital, but there the symptoms became more aggravated; the patient longed for death: all treatment was vain. The unhappy man died five months after the bite. The dead body, which was opened on the same day, had already begun to be decomposed. There were here and there livid spots on the skin; the cerebral vessels were engorged; the laryngo-pharyngeal passages were of a brown-black colour. Through the whole length of the œsophagus, and on the membrane of the stomach and of the intestinal canal, black spots were observed. The liver was enlarged, the bile black, and emitting a fetid odour. The pericardium did not contain any serosity, and the heart was diminished in size; the organs of generation were swelled and livid; and the blood, twelve pounds of which had been abstracted, did not coagulate. A little dog was inoculated with the saliva, was shut up, but set at liberty again at the end of eight months, having exhibited *no symptom of rabies.*

Case 2.—The dog of a shepherd was affected with *spontaneous rabies.* Before he was destroyed a certain quantity of saliva was taken, and a cat and the little dog which was the subject of the experiment in Case 1 were inoculated with it. On the sixth day after the inoculation, the dog had lost his usual spirits, and began

to refuse food and drink. On the eleventh day all the symptoms of rabies were developed; the dog had dread of liquids—fury—and frothy saliva was discharged from the mouth. The nervous excitation increased with great rapidity, and continued until his death, which took place on the fourteenth day after the inoculation.

Case 3.—Another little dog was inoculated with the saliva of this one, and a greater number of incisions were made than in the former case. After he had been shut up seven months, he was set at liberty, not having exhibited any symptom of rabies.

Case 4.—In the cat just spoken of, rabies developed itself thirty-four days after the inoculation, and such was the intensity of the disease, that she died on the second day. Another cat was inoculated with saliva from this one, and was shut up for six months, but no symptom of rabies presented itself.

Case 5.—In the month of March 1816, a dog *spontaneously rabid*, bit, at Tivoli, two other dogs. One of them was killed; the other, attacked with all the symptoms of rabies, escaped through the streets, and bit three or four women, not one of whom was affected with rabies.

Case 6.—In the month of January 1818, M. Capuccini, returning from hunting, saw, near Lucana bridge, a dog with glistening eyes, and ferocious look, and foaming mouth, attack and bite his dog. M. Cappuccini immediateiy shot him, without suspecting that he was rabid. Thirty-eight days afterwards, the dog which was bitten lost his usual spirits, refused his food, had dread of water, ran into the street, and bit four dogs which he met. Everybody fled at the sight of the enraged dog, except two children, which were also bitten. The dog disappeared, but it was afterwards found dead at the place where the disease first attacked him. It was ascertained, at the same time, that the dog of a gardener had become spontaneously rabid, and that it was the same dog which was killed at the bridge of Lucana. The masters of the four dogs which were bitten complained to M. Capuccini; but he assured them that, having been bitten by a dog in whom the disease was developed by communication, or in the second remove, they were perfectly safe. He gave the same assurance to the parents of the children, and his prognostic was completely verified.

Case 7.—M. Rosa had two dogs, one of a beautiful form, and the other very ugly; the latter, after refusing his food and water, and becoming dispirited, and trembling all over, escaped from the house never more to enter it; but before he ran away, he bit the other dog, and then directed his course towards Mount Ripoli, where some days afterwards he was found dead. After having ascertained that he had not been bitten by any other animal, and that, consequently, the rabies was *spontaneous*, M. Rosa was assured that his dog would become rabid. In fact, at the end of fifty-one days, he was attacked by all the symptoms of the malady, and although confined with some care, he broke his chains, bit a woman in the family and one of the domestics, and, in a street near Jesus Place, several women who were coming out of church; thence he directed his course towards Palais Communial Street, where he bit several times the dogs of Francois Giansante and MM. Betti. He passed through Palatine Place, and directing his course towards Saint Valérie, he met M. de Angelis, whom he bit slightly on the back of the hand, leaving a quantity of spume on the wound: lastly, at Saint-Ange Gate, he bit an old woman and a little girl, and precipitated himself among the ruins of Quintilie Varo. Not one of these persons or animals became rabid.

Case 8.—A dog of M. Etienne Jani began, towards the end of May 1821, to lose his usual spirits, and would no longer remain with the servant, Seraphin Orsini, whose inseparable companion he had been. On the morning of the 29th he had scarcely gone out of the house, before he flew on a dog of Madeleine Romani, which, although strong, and unprovokedly attacked, did not defend himself. The domestic spoke to him sternly, and made him return to the house. The symptoms of rabies increased. On the morrow the dog did not refuse the food which the servant threw to him, but escaped from the house, and the more he was called after the faster he ran. The servant ran after him, overtook him at the Cathedral Place, and seized him by the neck. The dog turned, and bit him slightly on the left hand; nevertheless, he was carried back to the house, and the symptoms becoming more violent, he was killed and thrown into the river. Fifteen days after the bite the unhappy domestic began to be melancholy—he lost his natural sleep and his appetite, and his bowels were constipated. A purgative of jalap was forced upon him, and some draughts of hydro-chloric acid. The bitten part was scarified, and the cupping-glasses were applied to it. These remedies not being efficacious, opium and musk were used; but the disease increased, and deglutition became impossi-

ble. There were no vesicles, nor any alteration of the frenum of the tongue or of the neighbouring parts. On the fifth day after the commencement of the disease, he died in horrible agony. Peculiar circumstances prevented the examination of the body. This occurrence had produced great terror in the whole family, when, as the mother of M. Jani was walking in her room, a rabbit, with a great quantity of frothy saliva, bit her on the left leg, and left a slight mark. This rabbit afterwards ran into a neighbouring stable, and several times bit the hind legs of a horse: it then bid itself and died rabid. There were found on it two wounds, one of which was not healed. This rabbit had lived with the dog that had become rabid. Neither the mistress of the house nor the horse was affected with the disease.

Case 9.—The dog of Madeleine Romani had been first bitten, as was stated in case 8. The disease was not developed in him until two months after the death of the servant Orsini and the rabbit; perhaps because he was bitten when the disease was in an early stage in the dog. One morning, early, this dog ran out of the house furious, and bit everything that came before him. Several dogs and five persons were bitten, but neither the one nor the other ever exhibited any symptoms of rabies.

Dr. Capello concludes, from these cases, not only that rabies is not communicated beyond the second person affected, but that its nature is not contagious. "Contagious diseases," says he, "are reproduced many times—nay, almost to infinity, and everywhere; but this is not the case with rabies. The former, either by means of a latent germ, or under atmospheric influence, appear and disappear at certain determined periods: rabies, on the contrary, knows nothing of these epochs, but develops itself at most irregular and uncertain times. Contagious affections, whether of the system generally, or affecting the integument alone, produce invariably some eruption or efflorescence, by means of which we can determine the true character of the disease; rabies, on the other hand, is accompanied by no eruption or discoloration of the skin. They assume characters more or less intense, by reason of certain meteorological changes: rabies, on the contrary, pursues its undeviating course, whatever be the circumstances, the season, the climate, the weather. Contagious diseases gradually lose much of their intensity of character, and some of them have disappeared from the surface of the earth: rabies, from the moment it was first described to the present hour, has uniformly retained the same character. They, however fearful may be their character, spare a few of the individuals which they attack; but rabies, whether spontaneous or communicated, is always mortal. Finally, contagious diseases propagate themselves with so much the more facility in proportion as they are fatal, and are transmitted not only by immediate contact, but by very circuitous means; rabies, although uniformly fatal, is transmitted only through the medium of a solution of continuity.

"A difference so marked," adds the author, "makes me more and more doubt the contagiousness of rabies. *Rabies canina* seems to me to form *the intermediate link which unites the chain of contagions with that of poisons*, properly so called. I made these reflections when, after more than forty days, out of the numerous animals that had, in the month of March 1811, been bitten by the ox described in the first case, not one of them had become rabid. I thought of those persons who, without presenting us with any convincing reasons, affirmed that rabies could not be communicated by herbivorous animals, and I felt that the arguments furnished by analogy were utterly contrary to this assertion; for, besides the anthrax of the tongue, and other contagious maladies of herbivorous animals, we had happily discovered the pustule on the teat, which not only could be propagated from the cow, by inoculation, to every other species of animals, but was a preservative in the human being against that destructive scourge the small-pox. In the month of April, in the same year, I happened to see the number for August 1810 of the *Medico-Chirurgical Journal* of Alexander Flajani, and the train of thought which had passed through my mind received much confirmation. There was an article in that journal in which, besides some cases related by Professor Rossi, of Turin, on this subject, I found the following case, related by Professor Bader. He had a rabid dog, which bit several others. They became rabid, but they did not communicate the disease to the animals bitten by them. This isolated fact, added the editor, is not sufficient to prove demonstratively the opinion of M. Bader, that rabies cannot be communicated beyond the first inoculation. This very proper reflection kept me for awhile in a state of incertitude; but I was, at length, fully convinced by the cases which I saw in 1813, 16, 18, 20, and 21."

"Does any one ask *how it happens that spontaneous rabies should be so contagious, and communicated rabies not contagious at all, when the symptoms of the one and the*

other are precisely the same? I can only answer, that the science of medicine consists of a series of facts, and that the cases which I have described are facts. I might, indeed, add, that when we attentively consider the physiological and pathological state of organized and living beings, there are many obscure questions, the mystery surrounding which the most ingenious men have not been able to disperse.

"If I may be permitted to advance an opinion, I think that there is one peculiar cause of the development of spontaneous rabies; and this cause certainly does not exist in those that have acquired the disease by communication. The symptoms of hydrophobia from a moral cause, and also those of sympathetic hydrophobia, do they not resemble—simulate—those of essential rabies, and yet they belong not to an affection which is virulent and contagious in its nature? But the symptoms of spontaneous rabies are *not identical*, at least *in degree*, with those that characterize the communicated disease. I have constantly observed, that the disobedience to command, the fury, the avoidance of society, which are precursor symptoms of the malady, are more intense, and more quickly appear in those that are affected with spontaneous rabies. The cases which I have reported prove this. It is rarely that dogs affected with spontaneous rabies are seen in inhabited places; when they become diseased, they search out for caverns and the most secret recesses."

The author concludes his first memoir, with making some observations on the etiology of rabies. Compelled to admit some special cause of the existence of spontaneous rabies, he thus proceeds:—"The reflections which I have made on the development of rabies in the Tiburtine country, induce me, among other causes described by authors, to recognise one exclusively, which I think will be the same wherever essential rabies manifests itself. It is neither rage, nor hot food, nor putrid meat, nor confinement, nor excessive fatigue, nor suppressed perspiration, nor variety of temperature, but simply *venereal desire existing to excess and not satisfied*. This circumstance seems to me to be the absolute cause of rabies. There are a greater number of male dogs at Tivoli than of females. The bitches when they are at heat are usually shut up, that they may breed with some selected male; the other dogs, led by instinct, wander about the houses in which the females are confined. In proportion as the gratification of the natural desire becomes more difficult it increases in violence, and it is easy to conceive of the sufferings of the animal, and the constitutional injury inflicted, when these desires are not gratified at all."

The *particular structure of the sexual organs* in the genus *canis* strengthens, according to the author, the opinion that this may be the exciting cause of rabies. "They have no *vesiculæ seminales*, so that the semen cannot be secreted without copulation; and there is, besides, in the canine race, a mechanism which prolongs the act of copulation. In other animals, on the contrary, provided with *vesiculæ seminales*, there is a kind of reservoir for the semen, in which it cannot only be absorbed, but from which it can be occasionally ejected without copulation. The constant superabundant semen in the spermatic vessels of the dog, and the state of venereal orgasm in which he so frequently or almost constantly is, must produce their effect on his whole constitution.

"In Egypt, and in other Mahometan countries, rabies is unknown, on account of the facilities which the canine race there experiences for the gratification of venereal desires. Some celebrated authors assert that castrated dogs are rarely affected with rabies."

In a second memoir, M. Capello endeavours to show that the opinions of several authors are in accordance with his, that rabies cannot be communicated to a third individual.—*Veterinarian*, Nov.

SCREW LITHOTRITE.

ITS INVENTION BY MR. WEISS, AND PIRACY BY MR. L'ESTRANGE.

To the Editor of THE LANCET.

SIR,—I am again compelled to avail myself of the space which, with your accustomed liberality, you throw open as neutral ground, to all who have a wrong to complain of, or a claim to establish, in order to reassert my right to the credit of an invention which another has not only availed himself of, without acknowledgment, but actually claims as his own.

I have to complain of the conduct of Mr. L'Estrange, a dentist, of Dublin, member of the Royal College of Surgeons in that city, who in the most unhandsome and unfair manner has attempted to take away from me all credit to the invention of the screw percussor, by giving it a new name and making an alteration in it, which alteration I can prove, by letters from gentlemen who have used it, renders it not only inefficient but dangerous.

He has had the effrontery to go to the

different surgeons in London and Dublin, stating that his was an entirely new instrument, and by such representations he has obtained numerous testimonies to his ingenuity in constructing an instrument which is not of his invention. He has made the same representations to the East India Company, and has thus procured a large order for these instruments; while I, who first invented it, and who have been making improvements upon it for these last ten years past, am not only deprived of the credit of the invention, but of the profits arising therefrom, which is the only recompense I have to look to for the perseverance, labour, and expense, which I have devoted to bring it to perfection.

The only novel feature in Mr. L'Estrange's alteration of my instrument is the introduction of a stilette for clearing out the detritus, the employment of which is highly deprecated by those gentlemen who have used it, as it greatly increases the bulk of the instrument; so much so, indeed, that in a trial of it which took place at the *Westminster Hospital* on the 30th of August, it was found to be too large for the orifice of the urethra. The stilette is likewise exceedingly dangerous, as on striking sharply against a portion of the stone it is likely to start from the groove and wound the bladder. Unfortunately for Mr. L'Estrange's instrument, the stilette is absolutely requisite, as it is so constructed that it would not close sufficiently without its employment. With respect to the other part of Mr. L'Estrange's invention, the screw, *that* was the principal feature in my instrument when I first invented it ten years ago; and even the separation of the screw from the instrument, if it were productive of any advantage, which it is not, is not original, for in February last, when I was preparing my improved instrument for publication, Mr. Guthrie sent me a drawing made by Capt. Cater, on the same plan as that of which Mr. L'Estrange claims the credit; but when the Captain saw my instrument, he in the most handsome manner withdrew his claim.

The separation of the screw from the instrument, however, so far from being an improvement, is a disadvantage, as it requires the assistance of another person to adjust it, and when affixed to the instrument renders it more clumsy and unmanageable. In fact the claims of Mr. L'Estrange to the invention, or even improvement of this instrument, are totally unfounded, and his conduct in attempting to impose on the profession by representing his as a new instrument, is such that it is not safe for me to characterize it, and in a member of a College of Surgeons is astonishing.

In proof of the priority of my claim to the invention of this instrument, I annex the following letter from Sir B. C. Brodie. I have likewise received other letters from very eminent surgeons, which may be inspected by any gentlemen desirous of seeing them.

I appeal to the profession at large to do me justice in this matter, and I am sure that to its enlightened members I shall not appeal in vain. I am, Sir,

Your obedient servant,

JOHN WEISS.

62, Strand, Oct. 28, 1834.

To Mr. John Weiss, 62, Strand.

Sir,—As nearly as I can recollect it must be between nine and ten years since you first showed me an instrument which you had made for the purpose of crushing calculi in the cavity of the bladder by means of a screw. Since then you have from time to time shown me various other instruments intended for the same operation; but they have been all founded on the same principle, and, in fact, have been only modifications and improvements of your original invention.

I have not the smallest doubt but the credit of having first contrived an instrument for crushing calculi in the bladder by means of a screw belongs to yourself, and although some ingenious persons have followed you in the path which you opened, I do not believe that there are any instruments now made which are so well adapted to this operation as those invented by yourself. I am, Sir,

Your obedient servant,

B. C. BRODIE.

14, Saville row, Oct. 7, 1834.

Description of the Plate.

Fig. 1 represents the instrument with the blades open to receive the stone.

Fig. 2, the method of holding the instrument while seizing the stone; the moveable blade being pushed forward upon the stone by the thumb.

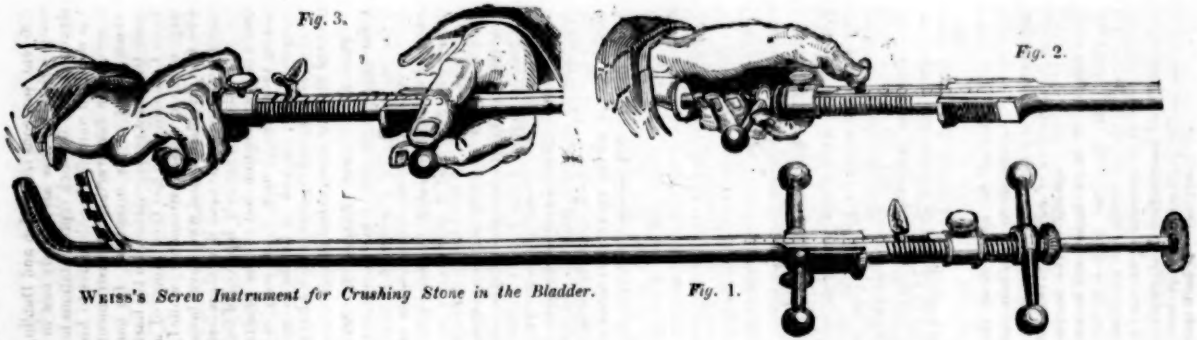
Fig. 3 represents the instrument as crushing the stone, the cross piece near the blades being held in the left hand, while the fly at the end propels the upper blade and crushes the stone.

The Screw Scoop Forceps.—This instrument has a flat handle similar to that of a sound, for the greater facility in its management. The blades are made hollow for the purpose of collecting and returning the fragments, and are sufficiently strong to break those fragments which are too large to be extracted.

The Catheter Forceps.—The blades of this instrument are made hollow, similar to the screw scoop forceps, to collect the detritus and small fragments, and allow of their passing off with the fluid; thus combining the purposes of the scoop and catheter.

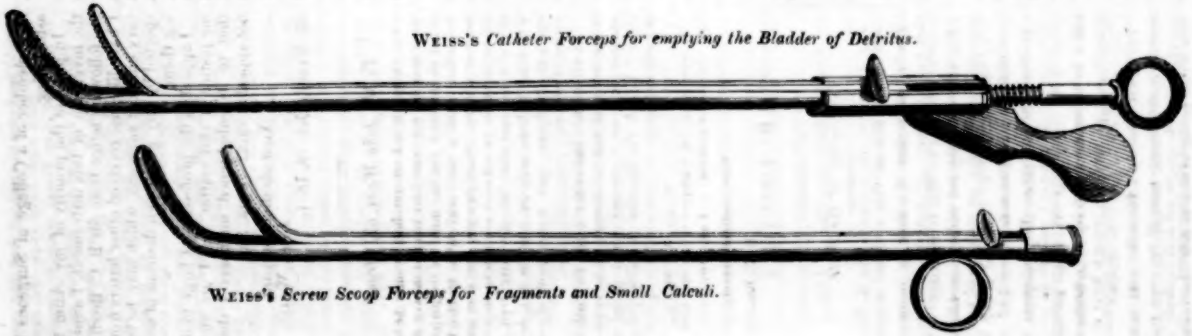
Fig. 3.

Fig. 2.



WEISS'S *Screw Instrument for Crushing Stone in the Bladder.* *Fig.* 1.

WEISS'S *Catheter Forceps for emptying the Bladder of Detritus.*



WEISS'S *Screw Scoop Forceps for Fragments and Small Calculi.*

SUDDEN AND UNEXPLAINED DEATH OF CHILDREN.

To the Editor of THE LANCET.

SIR,—I have lately been called upon to examine two children, who, without having been previously indisposed, were found dead in bed.

In the first case the child was about six months old, and was lying in bed with its mother, who discovered in the middle of the night that it was dead. An inquest was held upon the body, and I was directed, in the absence of anything like testimony as to the cause of its dissolution, to make a *post-mortem* investigation. I should mention that the mother stated positively that the child had not lain near her, and that it was impossible it could have been suffocated, either from its mouth having been applied to any part of her person or to the bed linen.

I found nothing unusual in the cavity of the skull,—no engorgement of the vessels,—no sanguineous or serous effusion. The viscera of the belly were in every respect of healthy appearance, and there was nothing in the stomach to indicate that it had come by its death unfairly. In the chest, however, I found, upon the surface of the thymus gland, numerous spots of extravasated blood, similar spots upon the surface of the lower and back parts of each lung, and many patches of ecchymosis upon the margin of the right ventricle of the heart, and along the course of the trunk of the coronary vein. There was no engorgement, however, of the pulmonary vessels, of the coronaries, or of the vessels of the thymus.

In the second case the child was five months old. It had been pretty well, had been suckled by its mother, and laid in bed upon its side, and in about an hour and a half afterwards was discovered to be dead. There was some frothy matter in and about the mouth, and its hands were firmly clenched. From the position in which it was found it was impossible it could have been smothered.

The appearances exhibited in the autopsy were strikingly the same as in the first case. The contents of the skull and belly were in a perfectly natural condition. The extravasated spots upon the thymus gland were more numerous than in the first case, and those upon the heart and the surface of the lungs were fewer in number. There was about half an ounce of serous fluid in the pericardium.

In these cases one naturally asks,—what was the cause of death? The similarity of the post-mortem appearances would lead one to suppose that the cause must in each case have been the same. In the first case I was strongly disposed to think, in spite of the evidence of the mother, that the child must have been destroyed by *overlaying* it; but after the occurrence of the last case, where, from all the testimony that could be obtained, it seemed impossible that the child could have been suffocated, as it was lying in bed by itself, and was not obstructed in its breathing by the bed-clothes, I confess that the opinion I had formed was a good deal shaken, and that I became almost entirely at a loss how to account for death in either. In both cases there seems to have been, from some cause or other, a sudden and violent action of the heart,—and numerous small vessels, from the increased force of its contraction, appear as a consequence to have given way. But so trifling a lesion could hardly, in either instance, be supposed to be of itself sufficient to produce death, and it is with the hope that some of your correspondents who may have seen similar cases, and who may be better able to offer an explanation of the phenomena they present than I am, will take the trouble of enlightening me upon the subject, that I am induced to forward you this communication.

At all events the cases may, I think, be considered of some interest, as well in a pathological as a medico-legal point of view. I have the honour to be, Sir, your obliged servant,

SAML. W. FEARN.

Derby, Oct. 19, 1834.

THE LANCET.

London, Saturday, Nov. 8, 1834.

In the last No. of this Journal a wish was expressed that the medical students of this metropolis would refrain from acting under the implied obligation of the new regulations issued by the Council of the College of Surgeons, until we had an opportunity of publishing the present No. of our Journal. The brief interval has passed, and it has been occupied by us in bestowing no inconsiderable portion of attention not only on what has been the past conduct of the Council towards the profession, but on what are the powers of the

Council under THE CHARTER, which they profess to regard as the legal instrument of their authority.

In executing the first portion of our labour, it may readily be conceived that we have not been gratified with many agreeable reminiscences. We have had, in fact, to peruse some of the darkest pages to be met with in the annals of the surgical profession. We have had to examine the records of transactions the bare mention of which will excite the blush of shame in any countenances, save those of chirurgical and hospital monopolists. We have seen the Council of the College of Surgeons engaged in an attempt to prevent the institution of medical schools in places situated at a distance from the metropolis. We have seen them employed in depriving the surgeons of provincial hospitals of their undoubted legal and professional rights. We have seen them conduct the entire proceedings of an important institution in midnight secrecy. We have known that they have carried on the whole of the examination of candidates for the diploma in a private room, thus excluding the very members of the College from profiting by those categories which were necessarily instituted with a view to test the attainments of the candidates for professional honours and privileges. We have seen the College exist for twenty-seven years without a library; and we have seen a museum, the most splendid in Europe, all but closed against the members of the College, and rendered useless during the few hours that it was thrown open, by the absence of even any portion of a descriptive catalogue of its contents during upwards of a quarter of a century. We have seen the Council of this College shower their favours in profusion on the surgeons of the recognised hospitals of the metropolis, and we have seen them treat with favour and with courtesy the dependants and odious toad-eaters of those surgeons; whilst from the independent members of the profession they invariably withheld every mark of dignity, every sign of public confidence and honour.

Instigated by the painful excitement of such a multitude of wrongs, the members of the College petitioned the Legislature for a parliamentary inquiry. A wise senate complied with the solicitation of the petitioners, and a Committee of the House of Commons was appointed, under the direction of a most able and upright chairman, which prosecuted an investigation into medical laws, government, practice, and education, that stands without a parallel in the history of medicine.

The Council of the College of Surgeons, emboldened by their success in iniquity, selected this appropriate moment for defying the legislature, and insulting the thousands of gentlemen who constitute the COMMONALTY of the College. Just as the doors of the Parliamentary Committee were thrown open, the Council, without consulting the members as to the propriety of such a proceeding, without enquiring whether the COMMONALTY would agree in the proposal for such an appropriation of the funds of the College, determined on altering in a most extensive manner, a building which had been erected only a little more than thirty years, and then at an enormous expense to the public. Just then, we repeat, as the doors of the Parliamentary Committee were thrown open, the doors of the College in Lincoln's Inn Fields were thrown down, together with the greater portion of the walls of that building. A more audacious step was, probably, never taken by any public corporation. But it is conjectured that the schemers did not proceed without calculating what *might be* the advantageous fruits of their labour; and it is reported, we know not how truly, that language somewhat similar to the following was uttered with a seducing effect, in the Council Chamber

of the Institution, during nearly the whole of the time that the question for the appointment of a committee was pending in the House of Commons

"If an Act of Parliament, based on general principles, is to be the result of "agitating the question of medical politics for so many years, it is impossible "to predict what may be its stipulations "with respect to the rights of this institution. Our ground is weak, because it "is known, and has been proved, that we "have abused our trust. We have passed "regulations for the benefit of hospital "surgeons, to the injury of surgeons engaged in general practice. We have "favoured our own class of lecturers. We "have favoured the hospitals of this metropolis,—institutions to which we are "ourselves attached. We believe that we "were justified in showing these partialities. Our motives were good. We "were desirous not so much of benefiting "ourselves as raising the character of the "profession by advancing the interests "of men of wealth and respectability, and "persons holding high official situations. "The members of the College, generally, "however, entertain opinions widely different from this, and unhappily the "public concur in holding similar opinions. "It is said, and even believed, that we "have acted entirely from selfish motives, "and that in the pursuit of wealth we "have disregarded alike the interests of "the profession, and those of the community. If then it be determined that "we have abused the privilege of our "offices—that we have violated the stipulations of our charter—we can have "no case in Parliament or elsewhere, "either in law or in equity. Hence we "must endeavour, by putting on a brazen "front, and taking up at once a bold "position in the field of strife, to secure, "by stratagem, advantages which we "never could hope to obtain by right, or "as the award of justice. Now it is "known that we have a heavy amount of "funds. Money is, at all times, a tempting article. We have enough to build "an institution for containing a National "Faculty of Medicine. The reformers "look with the eyes of lynxes towards our "wealth. Let us then appropriate it at "once (*loud cheers*), and apparently for "the benefit of the whole corporation. "(*Applause renewed.*) This, then, is the "time for enlarging the building. It "cannot be said that aught of a selfish "nature could prompt such a measure; for "surely the College is large enough for "the Council consisting of only twenty-one "individuals. The money, therefore, would "be expended for the benefit of the commonalty (*vociferous applause*), and by "this one act we should cut off from "the medical reformers and our senators, "the great charm of attraction,—the "great source of desire to meddle with "our affairs. But this is not all. If we "enlarge the College by an outlay of our "funds—if we render it highly capacious "and ornamental,—if we thus rear up "this temple in honour of the *surgical* "branch of medicine,—we may appeal to "the legislature with tenfold effect. It "would appear tyrannical and violent to "pass a law which should instantly have "the effect of converting such an institution to some other use than that for "which it was designed. Let us hasten, "then, to enlarge and ornament this "structure. Let us expend our funds on "those objects, and then should the Parliamentary Committee in their report "recommend the establishment of ONE "FACULTY, and an uniformity of title in "the profession, the members of the "House may be instantly informed of the "great improvements we have just made "here, and of the expenditure of the "*whole* of our funds in effecting those "improvements. With such a plea we

"may be successful in praying the legis-
"lature to give us an opportunity of
"trying what we can effect for the pro-
"fession and the public under our amended
"arrangements."

Acting under the influence of these noble views and sentiments, the College was pulled down, although not one word was addressed to the COMMONALTY on the subject,—the funds of the institution, be it at the same time remembered, belonging to the COMMONALTY, for whom the Council are merely TRUSTEES,—and precious trustees they are! In the hope of facilitating the expenditure of the funds, architects and artisans of all descriptions were set to work, and a great portion of the shell of a new structure has already been raised.

Having proceeded thus far in their labours, the benevolent and generous-minded Council have already favoured us with a specimen of their new system of government, in that extraordinary batch of "regulations" for hospital surgeons, private lecturers, and students, which we published in the last LANCET. Persons less interested in maintaining a corrupt institution than the Council of the College, regarded the pulling down of the College as an act of *desperation*,—as the effect of an expiring convulsion. That there was something suicidal in resorting to such a measure must be admitted. But what are we to say by the new regulations? If we are to judge of the *style* in which they are written,—by the grammar, or rather by the absence of grammar, which distinguishes the composition, we might almost be justified in averring that the Council are as insane and idiotic as they are crafty. The Council, like other would-be great potentates, intimate that they *expect* that such-and-such things will be done by students. But there is some excuse for not issuing an announcement of what is that expectation in the form of a *demand*, as we find, on referring to the CHARTER, that their authority is limited, with respect to regulations, to *expectation*, and to *expectation only*. But let us observe the manner in which the notable prelude is worded. "It is *expected* by the "Council of the College that the following "regulation *be attended to* by *all* students "coming to London for *any* part of their "education, *and* with the ulterior view of "becoming candidates for the diploma of "the College." With the exception of having introduced some of the foregoing words in *italic* characters, every syllable stands precisely as it is exhibited in the original document. After the "it is expected be attended to," we had reason to expect that any nonsense or trash would be displayed in the concluding portion of the paragraph; but although we thought to meet with something exceedingly ludicrous, we certainly did not expect to find the conjunction "and" introduced as it is after the word "education." The wiseacres have now said that they expect *all* the little boys who come to London for *any* part of their education, to attend to the College regulation, *and* with the ulterior view of becoming candidates for the diploma of the College! Then comes the regulation; it runs thus:—"Every student "on the *commencement* of his education in "London, is desired to present himself at "the College, to *register his name*, toge-"ther with the *documents* of his previous "studies." Mark this language.—The student on the *commencement* of his *education* in London is "to *register* his name at "the College, together with the *documents* "of his previous studies." Observe he is to register the *documents* of his previous studies. What the deuce do these batter-brained blockheads mean? Register the *documents* of his previous studies! His horn-book and pothook-and-hanger books?

The Council, moderate souls, are con-

tent with merely "expecting" that the students will comply with their conditions. This tone of moderation, so evident in the introduction to the "regulations," is strangely altered at the conclusion of the "regulation" itself, as we there find these words: "And *credit* will be given for at-"tendance on Hospital practice or lec-"tures in London only from the date of "such register."

Thus, it will be observed that the "expectation" is suddenly converted into a peremptory mandate. As evidence on attendance in London is not to be allowed, or received or acknowledged, except from the date of the registry, it is necessary that we should notice what further is to be done at the time when the *name* of the student is registered, together with the *documents* of his previous studies. We quote the identical words of the "regulation":—"At *which time* he will be re-"quired to produce evidence, satisfactory "to the Court of Examiners, of having "entered to those studies which are ne-"cessary for the *completion* of his educa-"tion." Observe, the *completion* of his education. If, then, a medical student on coming to London is desirous that the College should give him "*credit*" for his attendance on lectures and hospital practice in this metropolis from the 1st of December next, for instance, he must, should he *enter his name* at the College *on that day*, produce evidence "satisfactory to the Court of Examiners," of having then, with the exception of household expenses, paid all the money which his medical education will cost in this metropolis. There can be no quibbling, no shuffling here; the terms of the "regulation" are clear, defined, and specific, and *cannot* be mistaken. The student is "*required*" at the *commencement* of his studies to register his name, and at that very moment he is *required* to produce evidence "satisfactory to the Court of Examiners, that he has entered to those studies which are necessary for the *completion* of his education." And what evidence pray will be *satisfactory* to the Court of Examiners? Plainly enough, not any, unless it be presented in the form of *hospital* and *class-room tickets*, signed by the medical officers and lecturers. Thus the student who may apply to register his name on the 1st of December—(if there be such a fool in existence)—must take up with him

His "ticket" of admission to the surgical practice of one of the "recognised" hospitals.

His ticket of admission to Lectures on Anatomy.

His ticket of admission to Demonstrations.

His ticket of admission to Lectures on Surgery.

His ticket of admission to Lectures on the Practice of Physic.

His ticket of admission to Lectures on Chemistry.

His ticket of admission to Lectures on Midwifery.

His ticket of admission to Lectures on Botany.

His ticket of admission to Lectures on Materia Medica.

Such are to be the "*documents*" of his *future* studies, such the "satisfactory evidence" which he is to present to the Court of Examiners at the *commencement* of his education in London. How are these "tickets" of admission to be procured? Necessarily by paying the stipulated *fees* to the persons who sign and sell them.

In connexion with this odious attempt to inconvenience medical students and their friends, by requiring that all the *entrance fees* should be paid to the lecturers and Hospital surgeons before attendance can be bestowed on any portion of those lectures, there stands the following cool "recommendation" in the "regulations"

which this Council have so unblushingly promulgated:—"The Council *earnestly re-* "*commend* that candidates shall have "studied anatomy by attendance on lec- "tures and demonstration, and by dissec- "tions, *for one anatomical season* (occupy- "ing eight months) *prior* to their attend- "ance on the surgical practice of an hos- "pital."

So that in one and the same breath the Council *require* the student to pay for the *opportunity* of attending the surgical practice of a hospital, and earnestly recommend him not to *avail himself* of that opportunity until he has expended *eight months* of his time in pursuing other objects!

Now *we* have an "earnest recommendation" to give, too, and it is simply this, that the students will one and all resolve not to become the mean and miserable victims of such a vile system of injustice and extortion. They need not fear the College, for the Council have no power whatever in law, have no authority under the charter to enforce a compliance with the terms of their new batch of disgusting "regulations." A writ of mandamus in the Court of King's Bench would soon compel these crafty noodles to examine candidates for the diplomas. But what pray is the diploma of the College worth? Has the College a reputation, that a connexion with it is a desirable object? To a practitioner in surgery a diploma is not estimated, legally or professionally, at the value of one rush;—it is not of more worth than the snuff of a farthing candle. This, then, is pretty nearly the concluding act in the suicidal scene in which the Council of the College have for some time been engaged. English students of medicine will not consent to be *victimized* by a self-perpetuating junta of monopolists. They will not consent to pay for lectures which they cannot attend; they will not voluntarily become the slavish tools of the men whose only object in issuing their new "regulations" is to benefit themselves and their connexions.

But it may be asked, can a man legally practise surgery without one of their diplomas? Of course he can,—because the practice of surgery is not restricted *by law*. Under a better system of medical government it is obvious that no such privilege would be conceded to quacks and other ignorant pretenders; but, really, when the character of the institution in Lincoln's-inn-fields is considered, it is most consolatory to know that the Council cannot interfere with those surgeons who deem it an act of duty to spurn their empty pretensions, and have too much independence of mind to obtain by purchase a professional connexion with men whose public conduct he has always had reason to regard with feelings of abhorrence.

Still, it may be remarked, that although a man can legally practise as a surgeon without holding the diploma of the College, the possession of the diploma is nevertheless attended with certain legal advantages. Some years back, a gentleman who had bought the diploma (and its price at that time was thirty-two guineas), wrote to Belfour for the purpose of ascertaining what were the *legal advantages* which were secured to him by his having the diploma of the College. The following was the secretary's able and satisfactory reply;—

"Sir,—In answer to your letter, wish- "ing to know what are the legal advan- "tages enjoyed in consequence of being "a member of this College, I beg to state, "that you are exempted from serving the "parochial offices of overseer and con- "stable, and that you cannot be made to "serve on juries.—I am, Sir, your obedient "servant, ——."

The cunning secretary in quoting the words of a clause in 18 Geo. II., omitted the mention of one office which we think

it our duty to notice. That the members of the corporation are in all future times to be "freed and exempted from the several offices of constable, *scavenger*, overseer of the poor, and all other parish, ward, and leet offices." Poor Belfour was at a loss to know how it was possible that the members of the *commonalty* could be exempted from the office of *scavenger* when he had ocular proof that that office was invariably occupied by the pelf-scraping *members of the Council*.

Here then is an enumeration, taken from the words of the Act, of the immunities which are conferred on the members of the College. Still, *great* as they are, the advantages are not exclusive, as it happens that similar immunities are not only bestowed on the *licentiates* of the Apothecaries' Company, but *every surgeon* engaged in "*actual practice*," whether he possess the diploma of the College of Surgeons or not, is equally favoured in the eye of the *law*. In short, with regard to *surgery*, as we have already stated, as there are no exclusive rights in practice, so are there no exemptions from penalties connected with that branch of the profession, except in cases of *mala praxis*, and even in those cases, as was stated by the judge on the trial of Long, the Quack, for the slaughter of Miss Cashin, in point of *law*, the most ignorant man in the community stands on precisely the same footing as the most exalted medical functionary in the empire. We certainly cannot commend such a state of the law, but precisely thus was it stated to be by the learned judge.

Still, it may be asked, is not the diploma of the College of use to those gentlemen who are studying with the view of entering the public services of the Army and Navy? As we are anxious that the law affecting those gentlemen should be understood, we shall quote nearly the whole of that clause, in the charter which relates to them. "The examiners of the "College shall, and they are hereby re- "quired, from time to time, upon request "to them made by the commander-in- "chief of our forces, or by the commis- "sioners for executing the office of "Lord High Admiral, or any other officer "of us, our heirs or successors, properly "authorized, examine every person who "shall be a candidate to be appointed to "serve as a surgeon or assistant-surgeon "in any regiment, troop, company, hos- "pital, or garrison of soldiers in the ser- "vice of ourselves, our heirs or successors, "or to serve as a surgeon or surgeon's- "mate, appointed on board of any ship or "ships in the service of ourselves, our heirs "or successors, or any other service in "which we, our heirs or successors, shall "think fit to employ any person to act in "any such capacities, and shall accept "and receive for such examination, from "the persons so examined respectively, "such fee or reward as shall be allowed "by such officer as shall be authorized to "require such examinations, and no "more." As the "*request*" of the "authorized officer" is nothing less, in such cases, than a *command*, candidates for the medical service of the army and navy may treat with the contempt they deserve, the scandalous and impertinent "regulations" of the Council.

As we have exhausted our space, we must postpone a further consideration of the subject until next week.

Revue Medical Francaise et Etrangere.
Oct., 1834.

The number for this month contains three original articles; 1st, a review of some anatomical museums in Germany, England, and France, by C. Martins. There are a few hurried observations on the principal objects which struck the author's attention most particularly. 2nd, Physiological and therapeutical researches, on the effects of the compression of air,

on the body, or on isolated extremities, by V. T. Innod.

M. Innod has invented a peculiar apparatus for the purpose of augmenting or diminishing the pressure of the atmosphere on the body, and has made with it several experiments, the results of which he describes, and from which it appears that when atmospheric pressure is increased by one half, the respiratory functions become more active, the pulse is fuller, and the brain is stimulated by an increased quantity of blood carried to it. On the contrary, when the pressure is diminished by one quarter, the respiration becomes difficult and oppressed, the skin is painfully hot, hemorrhage supervenes, and the patient becomes lethargic. M. Innod reports three cases in which the above principles were successfully applied to the treatment of nervous affections and dyspnœa.

3rd. Researches on the treatment of some diseases of the eyes, by M. Pamard. This paper is not completed.

Propositions Générales sur l'Ophthalmologie, &c. Par Jules Lichel. Paris, Germer Bailliere. 1834.

This is the *avant courier* of a work which M. Lichel is about to publish on the diseases of the eye, and from the manner in which it is executed we have no doubt that the author will supply in a creditable way the want which still exists in France of some standard work on the diseases of the eye. As yet the French surgeons have produced nothing upon this subject, and are obliged to have recourse to translations from the English, German, or Italian authors. The foundation upon which M. Lichel sets out is an excellent one; he observes that from the structure of the human eye we are enabled to see in it many of those physiological changes which, in other parts of the body, we merely conclude to exist from very uncertain data; he therefore attaches himself principally to determine the anatomical character of those diseases during life; to anticipate, as it were, pathological anatomy, and thus to refer in the most certain manner, the organic lesions of the affection to which they really belong.

We understand, and many friends on this side of the water may be glad to be informed, that M. Lichel gives, as he has done for some years, a most excellent private course on ophthalmology, which is attended by most of the foreign medical men who remain in Paris for instruction. He charges but five francs for his course, and shows at each lecture at least twenty interesting eye cases, which are examined by each pupil in turn. M. Lichel obtains the attendance of the patients at his course by giving them medicine and medical advice gratuitously.

A Dictionary of Terms employed by the French in Anatomy, Physiology, Pathology, Practical Medicine, Surgery, Midwifery, Pharmacy, Medical Zoology, Botany, and Chemistry; with their Derivations from the Greek and Latin; their Synonyms in the Greek, Latin, French, German, and English; Explanations in English; and Illustrations in the Different Languages. By Shirley Palmer, M.D. Part I. Longman, 1834. 8vo. pp. 160.

This is a contribution at the altar of medicine which deserves the eulogies of the press. It is, in fact, one of those works respecting which reviewers generally break into ecstatic exclamations of wonder at the labour and research of the author. "The like of such talent and industry was never known," quoth most journals, whenever a volume is issued which shows that the compiler is a man of learning and assiduity. The effect would be unfortunate, if the journals were much diffused, for the profession, finding every goose dressed in the feathers of a superior bird, would cease to listen to the cry of "swan," and every now and then a true swan would really sail down the stream unadmired and unsought.

We hope that from no cause will it be the fate of Dr. Palmer's Dictionary,—"swan-like to sing and die," for he has conceived a work, and here given birth to the first part of it, which will prove of remarkable use to those for whose reference it is designed,—a class who are thus described:—

"The present work (says Dr. Palmer) has been undertaken with a view of facilitating the perusal of French and German literature to the medical student or practitioner who appreciates, as they deserve, the literary productions continually emanating from the continental press; and who feels honourably solicitous of appropriating to himself, from their original source, the valuable facts, and the novel and often important views and opinions, with which those productions teem. It may also serve to refresh his recollection, ever fleeting and evanescent without practice, of the Greek and Latin language."

If the second and third parts but match the first in quality, the value of English medical libraries will be much enhanced by the addition of this work. We should hardly think it possible, however, that the Dictionary can be completed in three parts of similar size to the first.

DUBLIN MEDICAL SESSION, 1834-35.

THE medical session commenced in Dublin on Monday week last, with an introductory lecture by Mr. HARRISON, at the College of Surgeons.

The distracted state of this Institution for some time back very generally excited the expectation that in opening the school some allusion would be made to its peculiar circumstances. The difficulties, however, of this plan were sought to be evaded by the exclusion of medical politics on the occasion; but the speaker's measured reference to the topic was infinitely more explanatory of the aspect of affairs in that quarter than the most candid and elaborate disquisition. In declining the discussion of the question he failed to produce the impression which he intended; for there was not one of his auditors who gave him credit for the implied conclusion that such an exposition was unnecessary. On the contrary, while Mr. HARRISON was intimating the impropriety of indulging in any "anticipated panegyric on the contemplated changes in the medical profession," there was not one around him, even to the youngest of his hearers, who was not convinced that if he could have entered on a defence of that system of which he then stood forward the mute-stricken and self-convicted organ, with any probability of success, he would have been as exuberantly loquacious in its advocacy, and as garrulously prophetic on its "permanence," as he had been sedulous for its preservation during the last twelve months. Could he, indeed, have indulged in such a strain with the slightest hopes of a favourable hearing, he would no doubt have cheerfully evinced a portion of the alacrity which he displayed to so much advantage during the recent summer on behalf of the College School in the lobbies and committee rooms of the House of Commons. But it was easy to perceive, even in the face of his friend Mr. CUSACK, the muscles of whose physiognomy are more under the influence of his fingers than his feelings, that he heard, in the brief allusion made to the subject, the knell of a system, for the defence of which the present might perhaps be the last opportunity which would be afforded in that place. In the expression of this melancholy presentiment, so interestingly depicted in the secretary's countenance as he cast around him a pathetic glance, first at the lecturer, and then, like the monk in STERNE, fixing it in resignation on the sleeve of his garment, the audience appeared to participate very generally. There were comparatively few of those bursts of boisterous applause which were formerly heard when, what were once denominated the "leading" men in the profession proceeded to their seats, and the lecturer began to discharge his duties; they were suffered on this occasion to take their places like so many "RICHARDS," while none did say "God bless them," as they passed along. Even the corpulent importance of the president, Mr. KIRBY, as he moved into the theatre with the jovial and plethoric air of Father FOIGARD, could not elicit, notwithstanding the provocation of the challenge, the usual derisive manifestation among the students, who are daily becoming more alive to the absurdities of professional *prestige*, and the impropriety of awarding approbation where it is not deserved.

The discourse itself was a mere rehearsal of CUVIER's classification &c., delivered much after the manner of a *cicerone* in a public museum. This beautiful, but now thread-bare arrangement, was recited with as much specialty of detail as if the audience had never heard of it before; and without the introduction of a single profound or philosophic remark.

On the following day (according, we presume, to agreement between the parties) this exhibition was repeated on a small scale in the theatre of Park-street School by a Mr. HART, who succeeded admirably in his caricature of poor CUVIER and HARRISON. The text was the same in both cases, though the circumstances were considerably different. Thus, in

the College, CUVIER's classification was spread over three or four yards of canvass; in Park-street it was crimped into as many feet. In the former, the drawings and other illustrations might have occupied an area of fifteen or twenty square feet: in the latter, the space devoted to the cocks and hens and other specimens should be taken in inches, the artist very properly stunting them into the proportions becoming the imitations which a little man might appropriately make of a great patron's productions; while in the one, if we were to measure the principal performer by the ordinary standard of abilities, we should, in the case of the leading actor in the other, be forced into a fractional calculation about a something which in the end, we fear, would resolve itself into an "evanescent quantity." In short, the similitude of subject and complete identity of objects in both places, though differing so widely in degree, would seem to corroborate the public impression of the sympathy and community of interests by which these two establishments appear to be united. Of them, indeed, and of their repetitions of CUVIER's alphabet, it may justly be said—

> "Non facies omnibus una,
> Sed qualem decet esse sororum."

We sincerely hope that when promotion or further application to his studies may warrant Mr. HARRISON in venturing to come forward as the expositor of a more advanced chapter in CUVIER's book of nature, his friend Mr. HART will inherit his horn-book in the College, and delight future audiences with holiday recitations of its contents. There was a time, indeed, when to manifest even so superficial an acquaintance with the works of this celebrated writer would have been looked on as profound learning and philosophy; but that day is gone by; and if these gentlemen mean to keep a college or a school, they must dig deeper into the volume than its title-page.

What was thought by an audience which included amongst its numbers the Archbishop of Dublin and the Provost of the University, of the address at the College on Monday week, it must be needless to surmise.

Dr. SOUTHEY has obtained the appointment of Professor of Physic at the Royal Exchange, and on Monday last gave his introductory address, on which occasion the brilliant talents of the lecturer attracted an audience of *eight* persons. The history of medicine, and the biography of Sir Thomas Gresham, whose bequest is the means of instruction to *so many* persons, formed the subjects of discourse.

INTERCEPTED LETTER.

[AFFAIRS AT PIMLICO.]

"DEAR SIR HENRY,—All is going on as well as possible as regards our patients. I do all I can, but you are much wanted, for I can get none to swallow draughts, or anything else, unless I tell them that *you* have ordered it, or that it is one of *your* favourite prescriptions.

"You will have seen THE LANCET account of the *St. George's Hospital* meeting. The speeches are just what you would expect our friends to say,—not the *whole* truth, though of course nothing *but* the truth. If I durst give an opinion, I would say that the time is now past for doing these jobs. As long as nobody either knew or cared about what was going on, it was all quite right and proper, but now everything meets the public eye in some way or other. BRODIE (Sir BENJAMIN I should call him) feels very sore on this occasion, and he is candid enough to confess that if he had suspected such opposition and exposure, nothing would have tempted him to stir in the affair. WILSON's liberal principles must, however, be smothered somehow or other.

"Matters now stand thus:—At *St. George's* BRODIE will bring in CUTLER, whom Sir ASTLEY has humorously certified to be a *sharp* fellow, and SEYMOUR and MACLEOD will get in HOPE, the same young man whom they have been employing on the journal. I am not acquainted with him, but it is a great thing for the *Gazette* to be completely under the management of the *St. George's* physicians. HOPE is the son of a hatter in Lancashire. I enclose you the dedication of his book, which, though it may have answered *his* purpose, presents a sad display of bad taste and servility.

"The election will not be so expensive as was expected; the other party finding their case *hopeless*, paid for only a *few* new governors, so that BRODIE had only about *forty* to create! I fear there will be some noise about this new governor-making system, and I don't think the *principle* can be defended with success in the present day. As to the new school at St. George's, in my opinion it would have been better to patch up the old one, which we all know possessed great capabilities. It is unlucky that these wranglings should happen at the time of BRODIE's getting his long-sighed-for baronetcy. But life is ever chequered, my respected friend, and it is lamentable to see BRODIE, instead of acting the *great* man and the *worthy* baronet, mixed up with all the little non-

sense and follies of a paltry medical school. What a contrast to *your* conduct, which *has* ever been, and ever *will* be, marked by the most lofty sentiments—the most highly cultivated classical taste—the most chaste demeanor—the most unbending integrity and independent manliness,—you,—the liberal patron of merit and high-moral feeling!

"Ever, Sir HENRY, your devoted and obliged

"Oct. 27th. T.

The following is HOPE's dedication."

To Doctors

CHAMBERS, HEWETT, SEYMOUR, & WILSON.

And Messrs.

KNATE, BRODIE, HAWKINS, & BABINGTON,

The Medical Officers of St. George's Hospital, To whom the Writer is deeply indebted for the Uniform Kindness which has Promoted, and Talent which has assisted, His Labours, and for the Excellence Of their Hospital Arrangements, which have Afforded him an Invaluable Sphere for The Prosecution of Researches on the Large Scale; also to

DR. LATHAM,

Physician to St. Bartholomew's Hospital, To whom he is equally indebted as a kind Friend, a Learned, Zealous, and Affable Teacher, and an Accomplished Propagator;

THIS VOLUME,

An Inadequate Testimony of Gratitude and Esteem, Is respectfully Inscribed, By their obliged Servant, THE AUTHOR.

EXCESSIVE DEVELOPMENT OF CELLULAR MEMBRANE IN THE ABDOMEN, WITH FATTY TUMOURS AND SEROUS CYSTS.

A. B., a labourer, aged 61, had been excessively fat, but had emaciated during the ten weeks previous to his death. He had suffered from dysentery, and apparently from extensive ascites. For the latter he was tapped, but only one pint of fluid escaped, still leaving distinct fluctuation perceptible.

On opening the abdomen after death a flat, solid, whitish tumour first presented itself, one inch in thickness, apparently the edge of the liver. It proved to be a fatty omentum. The mesentery was in an equally fatty state, one sixth of an inch in thickness, and studded with little bodies of the size of split peas, resembling tubercles, but consisting of fat. In the pelvis, larger fatty tumours were formed; one of them was of the size of a walnut. The liver was soft. It was covered with a thick layer of lymph, vividly injected. The abdomen was filled by cysts of every size, consisting of thin layers of newly-formed cellular membrane, filled with serum; some of these cysts contained a pint, others half a pint, others a dram only of fluid. They broke on the slightest injury.

I have not seen such a case of extraordinary development of cellular membrane and its secretions in any other instance. The present one may, therefore, be worthy of a place in THE LANCET.

PHILALETHES.

EFFECTS OF STRYCHNINE.

A lady being at ——, in September last, consulted a physician there, who prescribed the strychnine. I do not know the dose. I only know that it was afterwards *diminished* to one-tenth of a grain thrice a-day.

Two pills were taken at bed-time, and three the next morning; soon after which the patient was taken with spasm of the muscles about the larynx and those of one arm. She felt as if strangled. With much effort she mixed some *Eau de Cologne* with water, "snapped at it," and so swallowed it. She was shortly relieved. The dose of strychnine was repeated betwixt breakfast and noon. The same symptoms were renewed; she *felt* and *looked* as if strangled. The muscles on each side of the larynx became tense, like chords. She was again relieved by *Eau de Cologne*, which she took hastily, as before.

After this the dose of strychnine was reduced, as I have stated, and was taken without any bad effect. I think this case may also be worthy of being placed upon record.

PHILALETHES.

London, Oct. 30th, 1834.

SPONTANEOUS CURE OF CIRCOCELE.

To the Editor,—Sir, I beg to submit to your notice the subjoined case of spontaneous cure of circocele:—J. D., a shoemaker, of middle age, has been for the last three years troubled with an enormous circocele, which has so inconvenienced him as to render existence a burden. On the night of the 5th of this month he was seized with an unusual desire to pass his urine, and while in the act of so doing he

observed that the scrotum became suddenly discoloured, or, to use his own expression, "appeared as though mortification had taken place." A short time afterwards the whole volume of the tumour disappeared, nor has there been the slightest return of any of the symptoms since that period. The scrotum is now of the natural size. Both testicles may be distinctly felt, and the man is now as much in the possession of health and vigour as though it had never been otherwise.

I am, Sir, your obedient servant,

W. W. BRADSHAW,
M.D., M.R.C.S., &c.

Andover, Hants, Oct. 22nd, 1834.

THE TERM "SPOONFULS."

To the Editor of THE LANCET,—Sir, The word "spoonsful," though a subject apparently of trifling import, is, demonstrably, a grammatical error, and ought to be expunged from our vocabulary. The present exalted character of medical science in public opinion, demands that we should be particularly attentive even to minutiæ, as well in the literary as in the moral and practical part of our profession. The discrepancy of medical opinion as to the plural of the word, is really ridiculous; some practitioners writing on their labels spoonsful, others spoonfuls. I venture to submit the following explanation, which I presume will set the question at rest. *Spoonful* is a word composed of a substantive and an adjective. Now as the sign of plural in our language, the letter *s*, is never put in the middle of a word, it follows that the plural of *spoonful* must be *spoonfuls*, which distinctly implies *a measure a certain number of times filled*, without regard to the number of measures used. Should any one object to this definition of the term *spoonfuls*, I would ask him to give me the plural of the word *mouthful*, which is also a compound word, derived from *mouth* and *full*. The fact is, that in these cases imagination often acts the despot over reason and grammar. We know that there is more than one spoon, and, therefore, do not subscribe to the term *spoonfuls*, but the personal conviction which every one has that he possesses but one mouth, reconciles the term *mouthfuls* to use, which, by parity of (ungrammatical) reasoning, would be equally absurd with that of *spoonfuls*, but both of which are grammatically correct. I am, Sir, yours faithfully,

T. W. WANSBROUGH.

Fulham, Oct. 28, 1834.

PROPORTIONS OF DROPS TO MINIMS.—*To the Editor of* THE LANCET.—Sir, Will you allow me to inquire, if you think the comparative proportion of the minim and drop sufficiently recognised and considered by physicians, and the profession generally. In the subjoined scale (in which each article was carefully dropped from a draught vial, with mouth of the ordinary dimensions), you will see the necessity of making the *intended* distinction, particularly with the tincture opii. I am the more induced to trouble you with this, from knowing an instance in the metropolis, where tinct. opii was prescribed, forty minims, and which the physician afterward altered to forty drops, on discovery of the difference. I am, Mr. Editor, your obedient servant,

E.

Oct. 24th, 1834.

	Drops.		Minims.
Pure water.....	35	are required to be equal to	60
Muriatic acid.....	60	.....	60
Liquor potassæ....	70	.....	30
Tinctura kino	50	.....	30
Vinum antimonialis	50	.....	60
Tinctura digitalis ..	80	.....	60
Tinct. iodine	56	.....	30
Acid. prussic.....	50	.....	60
Tinct. opii	70	.....	30
Acid. sulph. dilut. ..	45	.....	60
Æther. rectif.....	65	.....	30

NOTE TO THE EDITOR.—Sir,—As an admirer of the talent of that eminent toxicologist Dr. Christison, and feeling how much we are indebted to him for his able work on Toxicology, I beg to reply to an assertion made by a reviewer in the last number of the *Medical Gazette*. Speaking of the "Aphorisms" of Dr. Venables, he says, "Dr. Venables is here, we believe, in advance of Dr. Christison, in noticing the properties of sulpho-cyanic acid in connexion with the meconic acid." Now the "Aphorism" to which the reviewer alludes runs thus, "Sulpho-cyanic acid communicates also a red colour with the persalts of iron, and therefore might be confounded with meconic acid; but the precipitate with *nitro-muriate of gold*, distinguishes it." Dr. Christison, at page 603, line 28, in speaking of the tests for meconic acid, says, "When dissolved, even in a large quantity of water, the solution acquires a cherry-red colour with the permuriate of iron. *Only one other acid is so affected, namely, the sulpho-cyanic, a very rare substance.*" At page 611, line 15, Dr. Christison further remarks, that "this acid (the sulpho-cyanic)

has been proved by *Professors Gmelin* and *Tiedemann* to exist in the human saliva." I cannot conclude this without stating, that there is no such genus of salts as nitro-muriates, and that the term is highly unchemical. I am, Sir, yours obediently,

MEDICUS.

London, Oct. 27th, 1834.

Dr. PEACOCK.—In the middle of last month we received a letter from Dr. Peacock, of Darlington, in reply to the last communication of Dr. Ayre. A surplus of matter prevented us from finding room for any portion of it; but as we have now a spare corner, we seize the opportunity of inserting the following extracts, and discharging our conscience of the weight which apparent neglect of the letter has imposed on it:—"When (says Dr. Peacock) we hit upon the simple treatment which was so successful in the month of August 1832, I immediately published it in the *London Med. and Phys. Journal* of October 1st in the same year, and never dreamt of a prior claim to the discovery. After this I read in the *Quarterly Review* of 1833, that Dr. Ayre laid claim—to what? "a mode of treatment combining many things with the calomel." My practice is a grain of calomel every ten minutes, washing it down with a wineglassful of cold spring water, and not suffering anything to be taken besides, till symptoms of recovery appear. Dr. A. has twitted me with the remark that I give the same dose of calomel to an infant as to an adult. Why, an infant will take a much greater dose in proportion with impunity than an adult, and of any new medicine physicians generally prescribe the *average* dose. I now hope I have done with the controversy for ever."

TORSION OF THE ARTERIES IN CANCER.

THE adversaries, and even many of the advocates, of torsion of the arteries, exclude this manœuvre from cases of cancer, because, say they, the vessel cannot be sufficiently drawn out from the cellular sheath, in order to ensure its torsion in a proper manner. On the 14th June last M. Amussat performed the amputation of a cancerous breast in a woman fifty-eight years of age. Three vessels of moderate caliber were twisted, the lips of the wound were brought together, and on the fifth day the dressings were removed, and immediate union found to have taken place all along the wound. However, the edges of the wound were united, not together, but at a distance of half an inch from each other, as the flap was so small.—*Journal de Physic. September.*

EJECTION OF A FŒTUS BY A CHILD.—The Greek journal *Le Sother*, of August the 13th, contains a report of a case by M. Ardoin, a surgeon in the French marine, in which a fœtus was ejected during a fit of vomiting by a young child resident in the island of Syra, named Demetrius Stamatelli. Dr. Ardoin, having been called to this child on the 19th of July, found him in a condition so desperate, with pains in the stomach and bowels, that, after in vain administering some remedies, he recommended to the parents to have the sacrament administered on the morrow. The next day, as a last resort, he gave the patient an emeto-purgative. After the first vomitings a fresh fit supervened, of a more energetic nature than the others, when, with a violent throe, the child expelled a fœtus by the mouth. The fœtus had a sufficiently well-formed head, a little bent, and but one arm; instead of inferior extremities, there was a fleshy-membranous prolongation, thinned at its termination, and united to the placenta by a species of sheath which occupied the place of an umbilical cord. The development of this fœtus appeared to have been arrested between the fortieth and fiftieth days of its embryo existence. On the morning of the third day the patient was much better, the morbid symptoms having diminished. The improvement has not since been interrupted. The report concludes with some observations to the following effect:—Having carried the fœtus home, he there, in the presence of many medical men, amongst whom were MM. Milonas and Corco, minutely investigated its structure anatomically, and clearly found it to be "a human fœtus." Afterwards, having placed it in alcohol, medico-legal examinations were instituted before the proper authorities, for the purpose of obtaining full assurance whether or not the strange occurrence might not have been "the result of fraud or crime." Adverting to the similar cases related by Passau in Bavaria, Highmore in England, and Dupuytren in France, "the possibility of such occurrences," says Ardoin, "cannot be denied, and I consider it my duty to declare that this event, remarkable though it be, rests not under the slightest doubt, since the accompanying testimonies are too authentic for refutation."

EFFECT OF HYD. OF POTASH ON THE LOWER ANIMALS.—The power of iodine over glandular enlargements in quadrupeds is strongly established. It was a great step in the progress of veterinary science, when the discovery of M. Coindet

was applied to them. It became, to a very pleasing extent, successful in cases which had previously been utterly intractable; yet the iodine seemed to exert a somewhat capricious power. It would have influence to a certain extent, and then, all at once, it would appear to be perfectly inert; and in more cases than one, instead of reducing the morbid growth on account of which it was administered, it would, as in the human being, waste the general condition and strength of the patient. It was an admirable improvement when the *hydriodate of potash* was substituted for the mineral. It will be found to succeed where the other seemed to be destitute altogether of power; it will not deceive the hope which it has once encouraged; and, so far as we have had opportunity of testing its agency, there is (common care being taken) no evil mingling with the good which it effects.—*Veterinarian, Nov.*

Resources of Nature.—A paper of M. Gasparin in the *Rec. de Méd. Vet.* for June, containing a case of necrosis, in which the os pedis (commonly called the coffin bone) was removed in a mule, establishes the fact, otherwise almost incredible, that a labouring quadruped may continue to be useful to a very considerable extent, after the bone of the foot has been completely destroyed by disease, and that nature is able to supply even a second or supposititious os pedis. The mule went to coach work, and was serviceable for two years. The reporter was not able, by dissection, to prove what new production or stump had grown from the smaller pastern.

DR. ASHWELL'S REPLY TO DR. BLUNDELL'S SECOND LETTER.

To the Editor of The Lancet.

Sir,—In my reply to Doctor Blundell's first letter, I made certain statements. These my predecessor has unequivocally contradicted, and fourteen times has he repeated, "that they are not true." My silence under such imputations might be mistaken for a consciousness, perhaps for an admission, of guilt. I must therefore verify my own assertions, and this verification shall rest on the best of all testimony; that of the Doctor's own letters. In addition, I shall only claim the attention of the medical public, and space in your journal, for two or three comments on the "fourteen heads" of my predecessor.

My *first* statement was, "that in 1829-30, I was requested by Doctor Blundell to give clinical instructions to his pupils." This is admitted, if it were not, my name on the printed papers of his charity would establish the fact. I did not say, that I gave clinical lectures, but I expressly used the term "clinical instructions" to characterize my precise employment. I will not stop to show how much I did and how long I acted in this capacity: the Doctor has attempted to prove how little I accomplished, and with such efforts I am quite satisfied. In connexion with this fact, it is said, "that I was disqualified for the important duty assigned to my friend Mr. Doubleday, because I was engaged in giving assistance to the rival class of Messrs. Grainger and Pilcher in Webb Street."

How true, or, rather "how untrue" is this statement of the former obstetric lecturer at Guy's, the subjoined letter will best show:—

"Saturday Morning,

"Nov. 1st, Union-street, Borough, 1834.

"My dear Ashwell,—I perfectly well recollect the conversation I had with you relative to the midwifery chair at Webb-street, when the late Doctor Hopkins was incapacitated to continue his duties; and that in consequence of your connexion with Guy's Hospital, you declined to enter into any arrangements with us. I can also positively state, that you never did assist, nor had an opportunity of assisting, the obstetric class of our school.

"I am, my dear Sir, yours truly,

"George Pilcher."

My *second* statement was, "that when the extension and improvement in the obstetric department at Guy's occurred, my predecessor wrote to me, and requested me to officiate as his obstetric assistant." In his second letter, this is denied. The proofs I now subjoin:—

"1, Great George-street, Westminster,

"Wednesday Morning, Aug. 31st, 1831.

"My dear Sir,—Will you inform me, per bearer, whether you can give me a call this morning at one p. m., as I *wish* to communicate with you on a subject in which you take an interest.

"I am, my dear Sir, yours faithfully,

"James Blundell."

The interview took place, and the result I furnish to my readers, in the "fac simile" of a paper now in my predecessor's possession; the terms of which were dictated by himself:—

"Lime-Street Square,

"August 31st, 1831.

"My dear Sir,—The impression on my mind from our conversation this morning,

relative to Guy's Hospital, leads to the following conclusions ;—

"1st. 'That my being admitted to perform certain of the duties attached to the clinical obstetric instruction gives me no claim to the midwifery chair, so long as you choose to occupy it.'

"2ndly. 'That I am to be recognised as your assistant in the above department, you of course taking the lead.'

"These matters, my dear Sir, are the formal basis of the arrangement, and allow me to assure you, that not only in the letter, but in the spirit, of them I fully concur. I am, my dear Sir, yours faithfully,

"SAMUEL ASHWELL.

"To Dr. Blundell."

Any one may now understand how true, or rather, how "untrue," is my predecessor's assertion, that *he* did not request, but merely *acquiesced* in my becoming his obstetric assistant. Such acquiescence, to say the least, was not passive, but discriminating and vigilant, and proves how sensitive he was to his own interests.

My *third* statement was, "that it was not till 1831, after the conclusion of the above arrangement, that I had the pleasure of being personally known to the treasurer." This gentleman's first conversation with me had reference to this very arrangement, he being naturally desirous to know the individual on whom, in Dr. Blundell's absence or illness, the important duties connected with the hospital were to devolve.

My *fourth* statement was, "that I gave the clinical lectures for two or three seasons." This is denied. Here is the proof;—My first clinical lecture was delivered in the medical theatre of the hospital, at the latter end of the session 1832-33. I continued to lecture clinically in the same theatre during the summer of 1833, the winter session of 1833, 34, and during the present summer. Since 1831, when the clinical obstetric teaching commenced, my predecessor may have given *eight* or *ten* such lectures, I have delivered at least *seventy*. In April, 1833, his health, as will be seen hereafter, failed, and the charge of the obstetric ward devolved entirely on myself. The clinical lecturing was involved in the duties of the ward, and I therefore performed it. Perhaps, however, my predecessor will remember, that late in the summer of 1833, his nephew, engaged I believe in the law, called on me at my residence, and by his uncle's desire, who was still in weak health, *requested* that I would not only continue in charge of the ward, but that I would also continue to lecture clinically.

This exposition of facts will suffice to neutralize the Doctor's unguarded and incorrect condemnation of my fourth assertion, "that it is not true."

My *fifth* statement was, "that I saw and treated *nearly* all the cases in the female ward, that I had the entire charge of the Hospital Lying-in Charity, and of the obstetric out-patients. Dr. Blundell himself, notwithstanding his denial, shall furnish the proofs of the first part of this proposition, the only part he really attempts to contradict.

The *obstetric* ward opened about September 1831. My predecessor commenced his attendance in November, and continued it till May 1832, a period of *six* months. I then received from him the following note :—

"Dear Sir,—As I am going to the continent for four or five weeks, I beg to commit to your care during my absence, clinical patients in Mary's ward; and I am, dear Sir, yours faithfully,

"JAMES BLUNDELL.

"1, Great George-street,
May 31st, 1832."

In November or December 1832, my predecessor again took charge of the ward, and resigned it to me in April 1833, having continued to perform its duties for another period of six months. On this occasion, he forwarded to me the subjoined communication :—

"Great George-street,
"April 13th, 1833.

"Dear Sir,—As I am at present confined to the house by indisposition, I will thank you to take under your care the obstetric patients in the clinical ward, till further notice. I am, dear Sir, your obedient servant,

"JAMES BLUNDELL."

Since the 13th April, 1833 up to the present time, Dr. Blundell has not once entered the ward; so that during the thirty-eight months it has been open for the reception of patients, my predecessor has been in attendance twelve, and I twenty-six, months.

What now must be thought of his "startling assertion," that "with a few occasional interruptions, these wards were regularly attended by himself, and not at his solicitation by Dr. Ashwell." Surely I may say, and *most unwillingly* do I adopt my predecessor's uncourteous phraseology, that these declarations are "utterly untrue."

Such were the assertions which Dr. Blundell, by an excess of ingenuity, has

contrived fourteen times "untruly" to gainsay and deny. After the proofs I have adduced, I am quite willing to abide the verdict of the professional public, as to their veracity.

I shall now proceed to make two or three comments on some other parts of this lengthy epistle, feeling that it would be unjust to myself, and uncourteous to the former obstetric lecturer, if I passed them by entirely unnoticed.

Dr. Blundell attempts to establish a distinction between the *clinical* and *midwifery* chairs. The former he allows to be *hospital* property, the latter, he says, is *private* property—a proposition utterly untenable,—the hospital, through its treasurer, having as decided a control over the one as over the other chair; *and such was formerly Dr. Blundell's own opinion.* In the draft of a paper of those "inchoate arrangements," which occurred in 1825, furnished to me by his own solicitor, there occurs the following passage: "It is hereby declared and agreed, that the introduction of the said Samuel Ashwell into the chair of the said lectureship, and the acceptance of him as such associate, assistant, or successor, by the *treasurer* of the said hospital, is intended to be, and shall be taken *as a condition precedent to all others*," &c. &c. &c. If this arrangement could not be effected without the permission of the treasurer (who might have been hostile), what becomes of any question as to "private property" in such a chair or lectureship?

Dr. Blundell has throughout this controversy assumed an elevation of tone and station to which, as yet, he has not established a satisfactory claim. That it is right to aim high, all will allow, but when my predecessor voluntarily steps forth, as the disinterested and suffering advocate of the class to which he belongs, he ought to be nearly if not quite certain, that he has not overrated his qualifications for such high duties. I am not sure, but I desire to express my opinion with diffidence, that the former obstetric lecturer of Guy's Hospital has mistaken his love of money for the love of a high-spirited independence.

As I am quite certain, and the facts are well known, that for a pecuniary consideration asked for him by his friend, he would, nay, he must, had it been given, have sacrificed the magnanimous sentiments contained in these two epistles. *Hinc illæ lachrymæ.* Dr. Blundell has amused himself at my supposed mistake in the Latin line, an error arising from the misquotation of his own letter, the sense, more than the measure of the verse, occupying my mind. I may, perhaps, be allowed to say, that, unlike my predecessor, I dislike quotations of this kind; there is something like pedantry about them, and the fulness and power of our own tongue, when well understood, disdain such illustrations. It is no small satisfaction to me to know, that notwithstanding the high language of my predecessor, the reputation of the Guy's obstetric school has in no way diminished; on the contrary, the numbers and close attention of the class equal, if they do not exceed, those of former years. These letters are not calculated to augment, scarcely to sustain, Dr. Blundell's former reputation. I have, therefore, answered them with regret and great reluctance, and I trust that my predecessor's friends will not advise him again to engage in so unprofitable a controversy.

I am, Sir, your obedient servant,
SAMUEL ASHWELL.

13, Devonshire Square, Bishopsgate Street, Nov. 4th, 1834.

HOTEL DIEU.

CANCEROUS TUMOUR OF THE SUPERIOR MAXILLARY SINUS — AMPUTATION OF THE SUPERIOR MAXILLARY BONE IN TOTALITY—EMPLOYMENT OF THE NEW ROWEL-SAW.

(Reported by our Paris Correspondent.)

ON Wednesday, the 22nd of October, M. ROBERT performed amputation of the superior maxillary bone, at the above Hospital, in the service of M. Breschet.

The patient, a man 51 years of age, of general good health, and rather robust appearance, is a sawyer of wood by trade, and therefore exposed to the air, subject to accidents, &c.; he says he has frequently received blows from pieces of wood about the head and face, but he does not remember having been injured immediately previous to the development of his present disease. About four months ago he was affected with general pains in the joints and extremities, resembling rheumatism, for which he was treated and soon cured. About two months ago he was first seized with a dull pain, which gradually became acute, in the side of the head and under the orbit; this soon extended to the forehead, side of the nose, and root of the jaw; it assumed the character of chronic neuralgia, and the pain was particularly seated in the course of the divisions of the fifth nerve. There was no appearance of inflammation, no heat of the parts, redness over the seat of the pain, or swelling of the cheek.

The persistence of the pains induced the patient to enter the Hospital about fifteen days ago; at first his case was considered one of neuralgia facialis; a blister was placed on the back of the neck, and some opiate medicine was ordered. These means had little or no influence on the pains. A more minute examination of the patient was made, and a tumour discovered underneath the lower edge of the right eye, which to-day (22nd) presents the following characters. The tumour is flat and unequal, barely perceptible to the eye, under the skin, which is very slightly elevated by it. It commences immediately under the lower edge of the bony orbit on the right side, and extends to the level of the wing of the nostril, being about half an inch long and a quarter broad; this tumour is very solid, hard, and irregular to the touch; however, the centre has begun to soften a little within the last few days, a circumstance which throws some obscurity on the diagnosis; it is not sensible; nor is the integument which covers it in the least altered; it proceeds evidently either from the bone, or maxillary sinus; for when the upper lip is elevated, the inferior part of the tumour is quite immoveable.

Nothing can be discovered by examining the nostril on the diseased side; there is no displacement of the bones, no tumour; there is, however, something particular here, because for some time back the patient has been unable to blow freely through this nostril, and a quantity of pus is frequently discharged through it.

In the cavity of the mouth we find nothing indicating the presence of a tumour; the hard and soft palates are perfectly normal; there is no tenderness on pressure of any part of the roof of the mouth, nor any indication of absorption having taken place at any point. There is one carious molar tooth on this side, and the one next to it has been destroyed, but the alveolar arch appears healthy.

On the side of the orbit there has been some change, for there is a slight projection of the eyeball on the affected side. The patient still complains of severe pain in the branches of the fifth nerve. There is no derangement of any of the functions worth speaking of.

Before proceeding to operate, M. Robert entered into some considerations on the nature of the disease in the present instance. The tumour (he said) might result from a collection of fluid in the antrum maxillare; or it might be a solid tumour developed either in the cavity of the antrum, or in the anterior wall of the superior maxillary bone itself. Here M. Robert described at length the symptoms accompanying the collection of a fluid in the maxillary sinus, and showed that the development of the tumour in the present case did not exactly correspond with them; he rather thought, from the manner in which the anterior wall of the antrum and the floor of the orbit were simultaneously affected, that the disease was a fungous or cancerous tumour, growing from the lining membrane of the antrum.

M. Robert therefore proposed to make an exploratory incision into the maxillary sinus, a little below the inferior edge of the tumour. If the latter resulted from pus or liquid in the antrum, the perforation might be left open for its discharge. If the tumour were found to be solid, the incision could be enlarged and the operation completed according to the exigencies of the case. With this view the upper lip was raised and dissected up with a bistoury on the surface of the maxillary bone; an opening was made with a strong knife through the anterior wall of the antrum, and the index finger of the right hand passed in through the opening. The operator immediately pronounced the existence of cancerous vegetations filling the whole of the antrum. M. Sanson, who was present, also introduced his finger, and confirmed the diagnosis of M. Robert. All uncertainty as to the nature of the disease was thus removed, and the necessity of an operation rendered clear.

Operation.—M. Robert at once made an incision, beginning at the angle of the lips, and extending obliquely upwards and outwards to the inferior angle of the temple, on a level with the angle of the orbit, and terminating an inch external to it; the coronary and facial arteries thus divided were immediately twisted; the parotid duct remained uninjured, external to the incision. The flap was now dissected from below upward, so as to expose the whole surface of the maxillary bone, and the anterior angle of the molar. During this part of the dissection the suborbital nerve and vessel were divided at their exit from the foramen. The hard parts which were to be divided being thus freely exposed, the operator commenced by sawing through the zygomatic arch near its junction with the molar; this was accomplished in a second or two with the new rowel-saw of MM. Thomson and Charriere. The bistoury was now resumed, and the operator exposed, more carefully, the external angle of the orbit, as well as its lower edge to the inner angle. He then applied the saw to the external orbitar process, but here some difficulty was experienced in fixing it, because in Charriere's saw the finger of the operator

alone is the *point d'appui*. M. SANSON suggested the expedient of placing the blade of a bistoury in front of the rowel, between it and the eyeball; this was done, and the saw immediately cut through the orbital process. It now remained to divide the ascending process of the superior maxillary bone near the inner angle of the orbit; the rowel of the saw in the hands of the operator being too large, he was obliged to use for this purpose a strong pair of bone scissars, one blade of which was introduced into the nostril; the division of bone, as far in as the spheno-maxillary fissure, was completed by several gentle strokes of the gouge. Although M. ROBERT used the utmost precaution in the use of this latter instrument, every stroke of the mallet seemed to cause exquisite pain to the patient. This part of the operation seemed to be the most difficult. M. ROBERT was obliged to break down a portion of the bone with the nippers, and again apply the gouge and mallet before he succeeded in completely detaching the bone superiorly and internally. The roof of the palate was the next part to be divided; after the incision of the integuments, the saw was placed between the two anterior incisor teeth, and in an inconceivably short space of time the greater part of the long palate was divided on the median line. A few strokes of the gouge and mallet completed the division of the hard parts here. The operator now proceeded to divide the trunk of the sub-orbital nerve with a straight narrow bistoury, and having fixed his thumbs on the floor of the orbit, made considerable efforts to depress the maxillary bone by communicating to it a species of rotation. In this he partly succeeded; the patient's mouth was now held open, and the soft parts, with the pterygoid muscles, were divided on the right side of the palate so as to connect the median and lateral incisions together. The bone now appeared to be more loose; it still, however, adhered by some osseous fibres at the posterior part; these were cut through with a strong curved scissars, as well as some adherences near the pterygoid process, and the operation was completed by the removal of the bone, twenty-five minutes after its commencement.

The immense cavity, bounded above by the eyeball, on the inner side by the septum of the nostril, and below by the tongue and cavity of the mouth, was sponged clean, and some portion of the tumour, enveloping the eustachian tube, which remained, was cut away with a curved scissars. A few fragments of bone were also removed, and two small vessels in the bottom of the wound drawn out and twisted. The operator now passed the index finger over the whole surface of the wound, and it would appear that some portion of the tumour still existed, as the actual cautery was twice applied, but with the utmost circumspection, on account of the neighbourhood of the carotid artery. The edges of the wound were now brought together, and kept in contact with six points of the twisted suture. The whole operation occupied about forty minutes.

The portion of bone removed comprised the molar and maxillary bones. The former presented a clean saw-cut at the zygomatic arch and external orbital process; internally it appeared as if luxated from the maxillary bone. The division of this latter along the palatine surface was perfectly even: the ascending nasal process was broken through, as also was the anterior wall of the antrum: the tumour was of a very hard and dense nature, pale-pink coloured; it filled up the whole of the antrum, and seemed to extend backwards beyond this cavity, for the portion divided at this point was very thick. It was connected closely with the membrane lining the floor of the nostril, and traces of the degenerated spongy bone might be discovered in it: the substance of the maxillary bone itself did not appear to be diseased.

23. The morning after the operation the patient was in a favourable state; he had slept tolerably well during the night; there is no fever; skin slightly warm; pulse small, seventy-six. The edges of the wound are agglutinated for two-thirds of their extent, from the superior angle; he complained of some pain in the head, and also in the temporal region, where he says a troublesome pulsation exists. He has, besides, pain in the region of the amygdalæ. The sub-maxillary region is painful and tumified. There is a marked drooping of the angle of the mouth and eyelid on the right side, but we cannot perceive that the sensibility is diminished; he is conscious of the finger being applied to the cheek or lip. There is a discharge of watery fluid from the right eye, but no pain in the organ; there is a copious discharge of saliva from the mouth. The patient was recommended to abstain from speaking or putting the muscles of the face into motion; he was directed to inject the cavity of the mouth frequently with cold barley-water and honey; no dressing placed on the wound.

We should have mentioned that about three hours after the operation the patient lost some blood by the mouth and nose; but the discharge was very soon arrested

by cold injections, and has not re-appeared.

The favourable state has continued without the intervention of the slightest accident. On the 27th the appearance of the wound was very encouraging: union by the first intention had taken place in three-fourths of the line; the rest gave very little pus: all the pins had been removed on the 24th and 25th. The cheek is somewhat swollen, and has now lost its sensibility to the touch, as well as the sub-orbital region: near the lip sensibility is diminished, but not completely lost. The motion of the right eyelid is quite recovered, and the organ looks healthy: there is still some little pain in the head and throat; skin quite cool; pulse 74; the patient has passed a very good night; three of the six sutures were taken away yesterday. The patient has been constipated since the operation.—*Lavement; continue emollients; cold injection in mouth; take four bouillons during the day, and a little wine.*

On Friday the 31st we again visited the patient. The wound looked well, and at the angle of the mouth was perfectly united; three points of suture still remain at the upper part. The patient is quite free from fever, but complains of some little pain in the temple and underneath the orbit; no change in the colour or condition of the skin in these regions: the cheek and region of the lower jaw are swollen slightly, but the former does not present any trace of sensibility: there is some diminished sensation under the eye, on side of nose and upper lip; he now complains of some difficulty in swallowing; the eyelids have recovered their normal appearance, but the angle of the mouth on the injured side is still very much drawn down, and there is a discharge of saliva in abundance. The patient complains of a pricking sensation in the side of the face.—*Continue injection; wine, and broth.*

There are three circumstances connected with this operation which are worthy of attention—1st, the early and accurate diagnosis of M. Robert; 2nd, the employment of a single flap; 3rd, the facility with which the hard parts were divided by Dr. Thomson's saw.

It was impossible to diagnosticate the tumour at an earlier period. In fact it had not presented itself externally many days before the operation, and although the softening of the interior portion threw some doubt on the minds of many surgeons who examined the tumour, yet M. Robert made his first incision with the full expectation of meeting a cancerous or fungous growth. The examination of the piece after its removal, showed that not a moment was to be lost. Indeed we are inclined to think that the tumour extended backwards, to some distance beyond the spheno-maxillary fissure, and that it would have been prudent to operate at an earlier stage had it been possible. The single flap of M. Robert affords abundant space for the surgeon to work in, and in most cases should supersede the crucial incision of Boyer and Syme, the V incision of Lisfranc, or the still more complicated one of M. Gensane, who first, we believe, attacked the upper jaw. M. Blandin (who amputated with success the superior maxillary bone on the 18th of March last; see Lancet) recommends commencing the incision a few lines above the commissure, in order to preserve its regularity after the healing of the wound. M. Ronert divided the angle, and re-union has taken place very regularly. The new saw used by M. Robert contributed in a high degree to the rapidity and facility with which this long and laborious operation was performed. It resembles very much in external form the osteotome of M. Heine, which we have lately described; but instead of a chain saw turning on a wheel, MM. Thomson and Charriere employ a series of cogged wheels, on the lowest of which turns a rowel saw. The diameter of each wheel diminishes as we descend. Hence the rowel turns with great velocity, which is not lessened when a rowel of large diameter is employed. Instead of a fixed *point d'appui*, as in M. Heine's saw, it is supported and guided by the left index finger of the operator. We shall give a full description (with an engraving) of this ingenious instrument in a future number.

ST. BARTHOLOMEW'S HOSPITAL.

DISEASED BURSÆ MUCOSÆ OF BOTH KNEES—OPERATION.

Saturday, half-past 12 p.m., Oct. 25.—A woman was brought into the operating theatre with a large tumour occupying the situation of each patella, which appeared about the size of an orange. Mr. Law-

RENCE proceeded to remove the diseased parts from the right knee by making two semicircular incisions about five inches in length, including an oblong portion of skin, tapering at the extremities to a point, and about an inch wide in the middle. The integuments were then reflected from the sides of the tumour, which was easily removed from the external surface of the patella by a few strokes of the knife. There were no vessels wounded requiring ligatures. The excrescence on the left knee was then dissected out in the same manner, and the patient carried to her bed after the wounds had been brought together by strapping. Mr. LAWRENCE observed "that it was an instance of enlargement and induration of the bursæ mucosæ, situated on the anterior surface of the patella, originating, as in most cases of this description, from kneeling or otherwise bruising the part, and thereby occasioning the appearances which these tumours presented as the result of inflammation. On making a section of the part, he discovered it to consist of a firm fibro-ligamentous or tendinous texture, obliterating almost entirely, if not altogether, the bursal sac. A small depression was certainly discernible in the centre of the tumour, but he could not say whether it was the remnant of the natural cavity, or occasioned in the progress of the disease."

EXCISION FOR THE BITE OF A CAT.

Immediately after the operation just described, a stout healthy-looking man, about 40 years of age, walked into the theatre, and stated that he had been bitten by a cat, which had for some days shown symptoms of disease, but from his description it could not be ascertained satisfactorily that the animal was suffering from hydrophobia. As he was, however, desirous that the parts which had been lacerated by the cat's teeth should be removed, Mr. LAWRENCE dissected off the integuments surrounding the wounds, which were situated in the index and middle fingers and thumb of the left hand. After the parts had been successfully excised, which occupied some considerable time, the operator ordered the patient to subject the raw surfaces to a constant stream of warm water, to be persevered in for an hour or two.

LARGE MILK ABSCESS OF THE BREAST.

Sarah Spurr, æt. 26, was admitted into Faith's Ward, under the care of Mr. LAWRENCE. She stated that she was the mother of five children, and had never suffered from any indisposition during her confinements, except in the last instance, in which labour ensued at the seventh month, when she produced a still-born child. Her breasts, after her former *accouchments*, had always been much distended with milk, and this was the case in the present instance. She had complained of pain and general uneasiness of the right mamma, and was ordered the application of warm cataplasms of bread and water to the affected part, previous to her admission, by the medical gentleman who delivered her, but finding no relief from this remedy, and perceiving that the breast increased in size, she applied to be admitted into the Hospital. At this time she was much emaciated; her pulse was weak, and she complained of the uneasiness she felt over the whole thorax, which rendered even respiration painful. On examining the breast there was found a large fluctuating tumour occupying its entire substance, extending over a great portion of the chest, and running back under the axilla; her nights were watchful, and rendered tedious by a constant cough: and her appetite was altogether wanting. Under these circumstances, Mr. LAWRENCE deemed it expedient to puncture the tumour, which was accordingly done, and two quarts of pus evacuated; the patient expressed herself much relieved after the operation; the oppression at the chest almost immediately subsided; poultices were ordered to be constantly applied. The wound, for about ten days, discharged freely, during which time a generous diet was allowed, and the sulphate of quinine administered twice or thrice a-day. Under this treatment the cough entirely left her, and her strength daily improved. A fortnight after her admittance the wound was nearly healed; discharge trifling, and her general health re-established. In this state she left the Hospital.

LATE OPERATION ON THE LOWER JAW.—Our readers will, no doubt, feel interested in the fate of the poor fellow who underwent the painful operation of excision of half the inferior maxillary bone, noticed in last week's LANCET. We are happy to state that he is in every respect better than we could have anticipated, being already sufficiently recovered to sit by the fire. The edges of the wound have united by the first intention, and the face appears but slightly disfigured. He is able to take fluids with ease, and can articulate distinctly. Mr. LAWRENCE stated, in his lecture of Wednesday 22nd, that the only inconvenience which he anticipated

the patient might experience, would arise from a difficulty of masticating solid food.

LATE OPERATION FOR BRACHIAL ANEURYSM.—The patient on whom Mr. LLOYD operated for brachial aneurysm, following mis-venesection, the particulars of which are mentioned in our Number for Saturday, October 18th, is going on very favourably. Slight pulsation is felt in the wrist, whilst that of the tumour is totally arrested, and the ligature has not yet come away. The aneurysmal swelling has not much diminished in size, though it has acquired a firmer feel, as if a coagulum was formed in its cavity.

DISLOCATION OF THE HUMERUS INTO THE AXILLA.—ATTEMPT AT REDUCTION.—A woman who was admitted into the hospital under Mr. Earle's care was brought into the operating theatre on Saturday, Nov. 1.—She stated that she had dislocated her right shoulder six weeks previous, which had never been reduced. Mr. Earle stated that as there was a meeting of the lecturers requiring his presence, he was under the necessity of requesting Mr. Skey to superintend the operation for the adjustment of the misplaced bone. The latter gentleman mentioned to the students, before he commenced the process, that it was his opinion that the attempt ought not to be made, and that it was only in compliance with Mr. Earle's request that he undertook the operation.

The patient being placed in a chair, the pulleys were adjusted, and considerable extension was employed for several minutes. The pad, however, by which the apparatus was attached to the arm, slipped over the elbow. One of a better construction was then applied to the limb, and extension was used until the head of the humerus was drawn anterior to the glenoid cavity of the scapula, when the pulleys were suddenly slackened. This, however, did not at all alter the appearance of the shoulder, the depression beneath the acromion process being as evident as before. Here the attempts ceased.

After the patient had been removed, Mr. Skey addressed the assembled pupils in the following words:—"Well, Gentlemen, I suppose you are anxious to know the result of the operation you have just witnessed, and the first question you will wish me to answer is—Is the bone in its proper and normal situation? This I must answer in the negative, and the result accords with the opinion I had previously formed, which I am now glad I stated to you before I commenced. Mr. Earle is a gentleman whose experience in this branch of surgery far surpasses mine, but that which I have has taught me to believe that after the lapse of time which has occurred in this case, such attempts to reduce the head of the bone to its natural socket are generally fruitless. But one point is certainly gained, which will render any further trials more easy. I allude to the rupture of those adhesions which the head of the humerus had formed in its new situation; these I distinctly felt give way one by one as the extension was increased."

THE LECTURES ON MIDWIFERY.

The pupils were about to quit the theatre, when Mr. STANLEY appeared, and requested the attention of the students whilst he read a paper which he held in his hand, the purport of which was, that in consequence of the disapprobation which had been expressed with regard to the midwifery non-instruction, the lecturers had met, and, after due deliberation, had petitioned the treasurer and almoners of the hospital to appoint Dr. LOCOCK to the obstetric chair, *pro tempore*. This request Mr. STANLEY added he was happy to state had been conceded. No plaudits, however, from the pupils evinced that they were pleased with the arrangement. Their absence, we understand, was caused by a feeling of disappointment that Dr. BLUNDELL had not been requested to fill the vacant chair, as it had been whispered about the Hospital for some days previous, that such an event was contemplated.

On Tuesday evening Dr. LOCOCK made his appearance in the lecture-room, when, the pupils considering that "half a loaf was better than no bread," afforded the new candidate for their approbation a round of applause. He then proceeded to observe, that his present situation was rather an unpleasant one, from the circumstances that had preceded his appointment, which, he observed, was only temporary, having been called on by the officers of the Hospital to assist them in their dilemma. He hoped for indulgence from his hearers for any want of fluency, as he had not lectured for five years, and he also hoped that the applause which had greeted him on his entrance might not be considered altogether undeserved when he quitted it. He then delivered a lecture on menstruation, and retired with plaudits such as he had besought, and the politeness of the students induced them to bestow.

POISONING BY SULPHURIC ACID.

Martha Carlile, æt. 25, was admitted into John's ward on the 29th of October. Her friends stated that an hour previous

to her admission she had swallowed half a vial full of sulphuric acid, whilst in a state of intoxication. The lips and mouth were very much swollen, and presented internally a white and excoriated surface. She was unable to articulate, and referred great pain which she experienced, to the epigastric region and throat. The stomach pump was immediately employed, and a quantity of warm water, with some subcarbonate of soda, was injected into the stomach. Fourteen leeches were ordered to be applied to the epigastrium, and twenty to the throat, and milk, with carbonate of magnesia, was directed to be taken *ad libitum*.

30. Countenance much flushed; the skin hot; pulse 108; the lips much swollen, white, and excoriated; she is able to articulate with tolerable distinctness; complains of a burning sensation in the throat, extending over the epigastrium. During the night she vomited a small quantity of blood; has been able to swallow some of the milk mixture, but with great difficulty; her bowels have been very scantily opened. Twelve leeches were applied to the region of the stomach, and ten grains of carbonate of magnesia in barley-water were ordered to be taken frequently. 6 P. M. Feels much better; complains of great pain in the throat, in the course of the œsophagus; pulse the same; the bowels have been opened twice; the stools very dark-coloured; there has been no vomiting of blood during the day.

31. Slept at intervals during the night. Is able to articulate more distinctly. The swelling of the face is much abated. The lips still present a white appearance; the pulse is small; the burning sensation of the throat has much decreased, but she still suffers pain on pressure over the epigastric region; the bowels have been but scantily relieved during the day. A dose of castor oil to be taken immediately.

November 1. Countenance more natural; tongue still white; the papillæ appear prominent; pulse 100; still suffers from uneasiness of the throat. Pain of the epigastrium much relieved, and she has been able to take in fluids freely during the day; the bowels have been relieved four times; stools fluid, and of a dark colour.

2. Feels much better; the pain of the throat has nearly subsided; the lips appear a little reddened; she is able to swallow fluids, but finds some difficulty in making use of any solid food.

4. All the symptoms have nearly disappeared; she is able to walk out of the Hospital, and experiences scarcely any inconvenience in swallowing.

ST. GEORGE'S HOSPITAL.

CLINICAL REMARKS, BY SIR B. BRODIE.

VARICOSE VEINS.

"I am attending a gentleman who has varicose veins of the thigh, and I find the common adhesive plaster strapping do very well to support the dilated veins, but this is apt to work up into folds. I have tried the adhesive plaster, spread upon thin slips of Indian rubber, but this is very expensive, and I shall try some of the thinnest Indian rubber cloth, which will not be so expensive, and will, I hope, answer equally well."

CHRONIC INFLAMMATION OF THE TESTIS.—"This is a very interesting case, Gentlemen: this man had syphilitic symptoms, which yielded to the effects of mercury, but this chronic enlargement of the testicle remained. Now, I suppose the fact to be, that the mercury did as much as it could do, as this thickening which remains behind consists of coagulable lymph in an organized state. I knew a gentleman who had an encysted hydrocele, which I did not like to meddle with; and I recommended him to have the fluid drawn off every now and then, which he did; he, however, got tired of the operation, and had a seton passed through it, which in time completely effected its absorption. This man is taking the iodine, which he has continued for the last fortnight. It is agreeing with him very well, and under its influence the testis is, I think, becoming smaller and softer in texture."

INSTRUMENT FOR STIFF AND CONTRACTED KNEE-JOINTS.—"This is a case, Gentlemen, also well worthy your attention. The boy, you see, has got a stiff and contracted knee-joint, and I am not quite certain whether the patella is fixed or not. If it be not fixed, he may recover the motion of the joint in some measure, which will be a very good thing for him, but if it be fixed, he may yet by the use of this instrument have a straight limb which will be of very great use to him; for, in its present contracted state, it is worse than no limb at all." The instrument to which Sir BENJAMIN adverted consists of a set of splints with strong leather pads and buckles, fixing them below the great trochanter, at the knee and above the ankle. Across the angle formed by the leg and thigh, there is a large groove into which a screw is fitted. These being attached to the posterior splints, the screw by being turned presses

on each end, and brings the contracted limb nearly into the straight position. Sir BENJAMIN remarked, that he had used this plan in several cases with success, and that in this case he supposed it would take from nine to twelve months.

DISEASE OF THE KIDNEYS AND BLADDER.—"Disease of the kidneys frequently simulates some of the symptoms of disease of the bladder. I had an opportunity of verifying this fact sometime since in a patient whom I was attending. Many of the symptoms were referred to the bladder, but on examining the body after death, there was found very little disease of that viscus, and very extensive disorganization of the kidney, which was of a brownish-red colour, soft, flabby, and vascular. In these cases I believe the *uva ursi* is very useful. It is an astringent vegetable, and I suppose acts upon the fine vascular structure of the kidney. Its presence is very soon apparent in the urine, which it will tinge of a green colour after a certain time. I believe it is not given in sufficiently large doses to produce its proper effects. I have known it ordered by physicians in three or four grain doses in powder, which is quite absurd. In these cases of disease of the kidney, I believe that after a time the bladder really becomes affected, and should the patient die, then you find both the one and the other diseased. Hence arises the difficulty of diagnosticating which of the two diseases is the original. We have yet a great deal to learn of these cases."

HYSTERICAL AFFECTION OF THE KNEE.—A young woman was admitted labouring under a form of disease which appeared to be an enlargement of the bursa mucosa detached between the patella and the skin. It was twice blistered, and cold lotion was afterwards applied, but still there remained behind what felt to the fingers like rough portions of cartilage under the skin. The girl had a decided hysterical appearance, and this, coupled with the fact that she complained almost of as much pain after the application as before, induced Sir B. BRODIE to look upon the case as one of "hysterical affection of the joint," and she was in consequence ordered to get up and move about. Sir BENJAMIN remarked that he met with a similar case some twenty years since, for the symptoms of which he was totally at a loss to account, but he should now call such a case one of hysteria.

ABDOMINAL TUMOURS.—"There are tumours in the abdomen which from their external appearance and situation will frequently resemble enlarged ovarian tumours, and put on all the appearances of ovarian dropsy. Yet they are frequently nothing more than collections of feces and flatus in the bowels, and form what might be more appropriately called cases of hysterical tympanitis. I remember many years ago, at the *Westminster Medical Society*, that Sir CHARLES CLARKE narrated some cases of ovarian dropsy which he announced having cured by the internal exhibition of the oil of turpentine. He *now* believes that those cases were nothing more than hysterical tympanitis, for the relief of which I should suppose the oil of turpentine to be a very good remedy."

UNUNITED FRACTURE OF THE BONES OF THE LEG.

The little boy, George Green, whose case we noticed some time since, continued to go on remarkably well; the wound was regularly examined and dressed at every visit of Sir B. BRODIE; the edges of the wound looked of a healthy florid colour, and granulations appeared at the bottom of the wound (which was always dressed with dry lint) at the end of a week after the operation.

Aug. 1. Wound looking perfectly healthy; ordered to be dressed to the bottom with lint, and strapped over with adhesive plaster, and have side-splints and bandages over the whole as before. The child looks pale, and appears to suffer from the necessarily confined air of the hospital.

8. The child had a slight attack of shivering last night, and there is some high degree of fever this morning. He has taken some calomel by direction of the house-surgeon, and he was ordered a half-measure of house-physic directly.

12. He is much better to-day; the fever has abated, and the wound is going on very well; the granulations sprouting up too much were ordered to be touched occasionally with the nitrate of silver, and the wound was dressed as before to the bottom with lint.

The case proceeded in this way for some time and the wound gradually healed and filled up with strong and healthy granulations, but on examining the limb and rotating it, no union whatever was found to have taken place between the fractured ends of the bone. Sir BENJAMIN BRODIE therefore applied splints and strapping in the usual way to bring by pressure the oblique fractured edges of the bones into the closest contact and adhesion possible, and in this state the boy now rests.

Operations.—Oct. 30th, 1834. There were four operations performed to-day. The first was in a case of *Aneurysm of the Femoral Artery*. The man was under the care of Mr. Keate. He was admitted some months before with aneurysm of the femoral artery in the right lower extremity. Mr. Keate tied the artery, and a few days after the operation, several black purplish spots were seen on the leg and foot of the same side, and the extremity was cold and œdematous. The day afterwards, amputation was performed above the knee. The stump healed readily, and the man did very well, when, within a few days of his discharge, he drew Mr. Keate's attention to a pulsating tumour in the left thigh, which, on examination, was found likewise to be aneurysmal. It was on this tumour that Mr. Keate operated to-day. The limb was enveloped in a flannel collar, and the man put to bed in a small ward adjoining the operating theatre. He has since gone on very well.

The next case was one of *Nævus* situated on the internal margin of the lower lip. Mr. Hawkins passed a double ligature tightly around its base. The tumour which it formed was large, and could be felt to pulsate.

The third case was one of *Necrosis of the whole length of the outer Edge of the Ulna*. The boy received a wound just above the wrist from a fork many months since; inflammation of the periosteum covering the bone, and of the bone itself, followed, and he has been in the Hospital some months, waiting until Sir B. Brodie should consider the dead bone fit to be removed. An incision was made through the skin, about midway between the elbow and ankle joints; when the trephine was applied, a circular portion of the new shell of bone was removed, and the long sequestrum of dead bone was divided into two portions. Through this opening the upper portion of dead bone was drawn outwards and downwards, and the lower portion outwards and upwards. The operation was short, and the boy has been doing well since. Sir B. Brodie is, we believe, the only surgeon who removes necrosed portions of bone by dividing them first into two pieces, where their length (if not so treated) would require a large external wound to be made for their removal. We have seen him operate several times in this manner; such cases in general always do well. The wound looked ill and foul for many weeks afterwards, owing to small sequestræ constantly coming away; but eventually they always heal up, and do well. On visiting this boy, a few days after the operation, Sir B. Brodie remarked "that inflammation of the periosteum and bone was generally a concomitant with rheumatic affection, and not unfrequently arose from a punctured wound. Such a wound was in general dangerous, from its penetrating the fascia, and if matter formed at the bottom of the wound, and suppuration took place, it would burrow under the fascia, which was of a tough and unyielding texture, and cause much constitutional disturbance; and as an example of this, Sir B. Brodie drew the attention of the gentlemen present to the symptoms which might occur in a punctured wound of the scalp, where matter formed and burrowed under the tendon of the occipito-frontalis muscle.

The next patient brought into the operating theatre was a little girl, who was under Sir B. Brodie's care with Necrosis of the right ramus of the inferior Maxillary Bone. An external incision along the inferior ridge of the bone was made, and several small sequestræ were extracted. The operation was simple enough. The forceps and scalpel were the only instruments used, and there was very little hemorrhage. Sir B. Brodie remarked that the external incision in an operation of this kind was generally to be avoided in females, on account of the deformity of a scar which is left behind. In this case, however, to have operated internally, from the mouth, would have rendered the operation much more difficult and dangerous, both to the patient and the operator, than the plan which he had pursued. The patient has since gone on very well.

The following document has, we understand, been extensively circulated amongst the Governors of *St. George's Hospital*. The testimonial is the more honourable to Mr. Lane, as there are amongst the subscribers to it very many gentlemen who are engaged in extensive practice in the neighbourhood of the institution. It is impossible not to admire the spirit of those students who, not having yet received their diplomas and licenses, thus dare to express a favourable opinion of their teacher, at a time when he is opposed in an honourable undertaking by persons officially connected with those institutions at which they will be under the necessity of applying for their licenses, before they can undertake to discharge in a legal manner the duties of their profession:—

"*To the Governors of St. George's Hospital.*—We, the undersigned pupils of St. George's Hospital and the adjoining thea-

tre of anatomy, from our personal knowledge of Mr. Lane, from the advantages we have derived from his instructions as an anatomical teacher, and from the kindness and attention he has invariably shown towards us, feel called upon (in our interests for the future, and in our duty for the past) to express, most respectfully, our earnest hope, that those Governors who have not yet promised their votes, will be pleased, in consideration of our request, to afford their support to Mr. Lane, in the ensuing election for the office of second assistant surgeon to the above institution:—

R. G. C. Gardner,	George Crosier,
Henry Wooldridge,	S. Johnson,
Henry Howlett,	E. S. Leete,
C. Elwyn,	A. J. Skrimshire,
R. W. Sannermann,	Robert F. Browne,
C. Toogood,	W. Shillito,
W. H. Wood,	C. P. Stevens,
F. S. Muller,	C. Bruorton,
F. M. Willesford,	Edmund T. Halliday,
E. Fagg,	Arthur Noverre,
E. Foaker,	J. W. Robinson,
W. Symonds Rootes,	T. F. Oliver,
A. P. Nunn,	Charles Thatcher,
J. H. Steele,	William Coyne,
William P. Hoare,	Charles Upton,
Thomas Keen,	William Hudson,
Charles Pickering,	William Fawssett,
R. Rowland,	Michael Mee,
Edward Dakins,	C. V. Ridout,
William Veal,	J. A. Dela Hooke,
T. Williams,	J. C. Cornelius,
James Ralton,	J. Collins,
C. A. Holcombe,	James Dodd,
J. E. Jones,	Henry Elsegood,
G. D. Pridham,	John Bredale,
H. Lomax,	T. P. Smith,
T. Willmott,	John B. Robertson,
George T. Gream,	R. Jones,
Righton Gream,	Henry Parry,
Thomas Jervis,	Robinson Elsdale,
M. Neale,	G. Parsons,
Guernsey Bowen,	George Grey,
Robert Bage,	W. P. Bennet,
James Probert,	Edmund Guest,
Edward Crosse,	George Robinson,
T. A. Richards.	F. H. Parker."
Arthur C. Tupper,	

RICHMOND HOSPITAL, DUBLIN.

ERYSIPELAS. — MERCURIAL INUNCTION.

In the following cases, reported by Dr. M'Dowell, one of the surgeons of the above hospital, the plan of mercurial inunction was adopted:—

Case 1.—Bridget Keogh, aged 26, admitted May 10th, with an ulcerated burn of the right leg; on the 26th rigors and nausea; on the 27th erysipelas appeared, which continued to extend, and on the 29th occupied almost the entire of the thigh, leaving some patches unaffected; colour, deep red; considerable symptomatic fever, and much soreness complained of. The inflamed surface to be covered with *mercurial ointment*.

30. Inflammation has not extended; tongue loaded; bowels confined. Purging mixture directed.

July 1. Catamenia being present, did not take the mixture; recurrence of rigors, and extension of erysipelas, both superiorly and inferiorly; vesications forming; tongue more loaded; bowels still confined. A castor-oil draught ordered; ointment continued.

2. The erysipelas has extended nearly to the ankle; large vesications on inside of the thigh; increase of fever; bowels very open; pulse quick and full; abdominal tenderness. Ordered a diaphoretic mixture, with tincture of opium, and V. S. ad ℥xii. The ointment only to be applied to the spreading inflammation.

3. Restless night; less fever; nausea; bowels open; pulse 96, less full; erysipelas stationary. In the evening diarrhœa and tenesmus; restless; raves. An anodyne enema administered; limb elevated.

5. Improved; much of the erysipelas has disappeared, and what remains is much paler; some diarrhœa has continued; tongue cleaning; rests well; mouth very sore. The mercurial ointment removed; the nitrate of silver in substance applied freely to the borders of the erysipelas, and to any patches remaining; arrow root and milk for food; an enema of mucilage of starch, with tincture of opium.

6. Much better; little trace of erysipelas; tongue cleaning; bowels regular; pulse quiet. Beef tea and arrow root for diet. ℞ *Sulphatis Quininæ* gr. xii; *Acidi Sulphurici Diluti*, gutts. xxiv; *Mist. Camphoræ* ℥vi; *Tinct. Cardamomi Comp.* ʒi. ℿ. Sumat ʒi ter in die.

8. Convalescent.

Case 2.—Anne Conway, aged 30, admitted May 14th, 1834, with chronic ulceration of the leg; erysipelas set in on the 17th, preceded by severe rigors on the 19th; had nausea and vomiting during the night. On 20th, tongue furred, extending erysipelas reaching from the patella to the ankle, abruptly ending above, gradually shading off below; the colour is in general of a dusky red, with pale spots interspersed; much tenderness and heat of surface. Leeches were applied yesterday, but drew little blood; skin hot and

dry; no discharge from the sores. *Mercurial ointment* to be applied.

21. Some extension of the redness on the inside of the thigh, but in general it has much subsided. Saline purging mixture directed. 22. Disease extending above; healthy discharge from the ulcers. 24. Still slowly travelling upwards; vesications over the patella. 28. Mouth affected; inflammation arrested.

29. A patch of erysipelas near the trochanter. Ointment applied.

30. Extension of inflammation; nausea; sore mouth. Gargle of the chlorate of soda with sirup. ℞ *Confect. Aromat.* ℥i; *Tinct. Opii*, gutts. xx; *Aquæ Cinnamomi* ʒi. ℿ. Fiat haustus, statim sumendus. Ointment omitted.

July 2. No extension of disease; debility. Quinine ordered.

3. Erysipelas again extending; it occupies the gluteal region to within two and a half inches of the crest of the ilium; leg and thigh free; tongue coated with a dark drab-coloured fur; this fresh attack accompanied by frequent nausea, vomiting, and diarrhœa; no abdominal tenderness. ℞ *Mist. Cretæ* ʒviii; *Tinct. Opii* ʒi; *Spir. Lavandulæ Comp.* ʒss; *Syrupi Zingiberis* ʒiii. M. ʒi post sedes singulas liquidas.

5. Erysipelas still extending; the border rubbed with nitrate of silver in substance; cessation of vomiting and diarrhœa; tongue loaded and brown; pulse very feeble. Ordered ℞ *Mist. Camphoræ* ʒvi; *Carb. Ammoniæ* gr. xxiv; *Ætheris* ʒii. ℿ. ʒi. 4tis horis.

7. Improving; inflammation fading; tongue clean; bowels regular; pulse stronger; strength increased. In a few days afterwards was able to leave the hospital perfectly recovered.

Case 3.—Eliza Killeen, æt. 40, was admitted with a tubercular and phagedenic ulceration of the upper lip and left commissure, of three weeks' duration. On the 15th and 16th of June, she was attacked with rigours and nausea.

On the 18th, face greatly inflamed; of a dusky-red colour; much tumefaction and induration of lips and cheeks; suffers much pain; raved all last night; tongue white and furred; ardent thirst; bad taste; pulse weak, not much quickened; bowels confined. Mercurial ointment to the face; bowels to be freed by enema.

21. Extension of erysipelas to the scalp. Ointment smeared thickly over all the inflamed parts.

22. Much better; erysipelas has faded considerably; is salivated. Omit ointment. 24. Inflammation gone. A gargle directed.

29. Mouth nearly well; original disease almost entirely removed.

Case 4.—Margaret Loftus, aged 46, weak and emaciated: admitted July 8, 1834, with erysipelas of the face, forehead, and ears; tremors; cold clammy perspiration; loaded tongue, and pulse indistinct. Previous history:—was first affected six weeks ago with heaviness, stupor, and darting pains in the head; the erysipelas commenced six days since; the headach has been relieved within the last two days; the bowels have been confined for six weeks past. A large emollient enema directed to be administered with the long tube and syringe, and the erysipelas to be dressed with *mercurial ointment*.

9. Bowels well freed; tongue loaded; great thirst during the night; inflammation paler; no tremors: pulse quick.

10. Diminished erysipelas; thirst; loaded tongue; quick pulse; rests well.

11. Mouth very sore; bowels free; erysipelas only occupies the right side of the face. To this nitrate of silver was applied, and all the ointment carefully washed off.

12. Mouth very sore; ulcerated. Solution of nitrate of silver applied to the ulcers, and a gargle, with the chlorate of soda directed.

15. Erysipelas has disappeared; diarrhœa, and mouth very sore; these effects of the mercurial application were removed, and on the 21st July she was discharged.

In several other cases of erysipelas I have found the mercurial inunction very efficacious, and would venture to recommend, that this plan be more extensively adopted than it has hitherto been, at least in this country.—*Dub. Jour., Nov.*

GUY'S HOSPITAL.

Lectures and Subjects.—The timely castigation has been of service to some of the intriguing people at this Hospital, Mr. Cock has not appeared in the character of anatomical lecturer since Friday sennight, the day before the last Lancet was published.

A meeting of the students took place on Wednesday evening, in the anatomical theatre, in order to petition the Secretary of State for a better supply of subjects for dissection in the school. After a few suitable resolutions had been carried, almost unanimously, as appeared by the show of hands, and just as the meeting appeared to be about separating, great opposition was evinced by a party of the students, who behaved in a very turbulent manner,

and endeavoured to excite a counter feeling. The president, Mr. KING, demonstrator, left the chair, which was supplied by a student, who, after vainly seeking to restore order, declared the meeting adjourned. A pupil of the school complains to us "that an undue influence has been exercised by Dr. Somerville to prevent any subjects from being taken to Guy's Hospital, excepting through his permission." He adds, "That other schools have an abundant supply." Our correspondent mistakes both Dr. Somerville's power as an inspector, and we are sure his inclinations. Dr. Somerville is, in fact, the proper person to apply to for the purpose of obtaining a remedy for the grievance.

(*From a Correspondent "who has just paid twenty-six guineas to witness the operations.*")—On Friday evening last Mr. KEY performed the operation for femoral hernia on a female at Guy's Hospital. When the patient arrived in the Theatre, the space within the bar allotted to apprentices and dressers (who, however, have no kind of right there which is superior to that of the other students) was indiscriminately filled with persons who had thus availed themselves of the confusion attendant upon an unexpected operation. The scene during the operation was of the most disgusting kind. The pupils within the bar pressed closely upon the operator, effectually concealing what was going on from most of those who had taken their proper stations. Indignant at the intrusion and favoured by the darkness, the secluded students above thought themselves justified in making the most discordant uproar. When shouting had no effect on the persons below, blows were tried, and this disgraceful scene continued throughout the operation. Although one word from Mr. KEY would have stopped all this and cleared the area, he never took the slightest notice of what was going on, though he must have well known what a number of pupils were wholly debarred from seeing the operation.

WIDOW OF THE LATE DR. HOPKINS.

"*National Benevolent Institution.*—The favour of your support is earnestly solicited on behalf of Mrs. ELEANOR HOPKINS, aged 72. Mrs. Hopkins is widow of the late Dr. Joseph Hopkins, of Queen-square, Westminster, formerly of the Guards, and Physician to H. R. H. the late Duke of Kent; and mother of the late Dr. E. J. Hopkins, Physician Accoucheur to the Foot Guards, and one of the most popular teachers of his profession. A series of unexampled calamities have reduced Mrs. Hopkins from affluence to penury. By the falling of several houses in York-street, Westminster, in the autumn of 1832, including a tenement of hers, held on copyhold, her last support has failed, and she is now in her old age entirely dependent upon the bounty of her friends. Recommended by H. R. H. the Duchess of Kent, Sir A. Cooper, Sir A. Carlisle, Anthony White, Wm. Lynn, G. J. Guthrie, Esqrs. Dr. Blundell, &c. &c. &c."

To the Editor of THE LANCET.—SIR, The above is copied from a card issued by the friends of an unfortunate lady, who is a candidate for the pension of the *National Benevolent Institution.* The widow and mother of physicians, her case is one which peculiarly claims the sympathy of medical men. Many among them are subscribers to the charity in question—most have influence; may I, therefore, request your valuable agency in bringing this appeal before the notice of the profession, and earnestly soliciting its patronage on behalf of one so especially deserving of its humane consideration? Dr. E. J. Hopkins, son of the above lady, will be remembered as the Professor of Midwifery at the Webb-street School and in Little Dean-street. Many of his pupils may be glad of an opportunity of paying respect to their old teacher; I may, therefore, further observe, that every subscriber of 5*s.* is entitled to one vote, and so on in proportion for every 5*s.* subscribed. The election takes place on the 27th November. I am, Sir, your obedient servant,

G. F. KNOX.

October 28th, 1834.

LONDON HOSPITAL.—A Beadle has been placed at the door of this Hospital with directions received from the *Chaplain* to allow no medical students to enter the hospital to view its arrangements who have not paid the fees for attending the practice. Dr. BILLING happened to detect the beadle last week in the act of rudely repulsing two gentlemen who were on the point of entering in company with a pupil of the establishment, and having in the most liberal manner interfered and obtained their admission, has since, we believe, given notice in the committee, that he will bring forward the question of these odious seclusions of students and practitioners.

MEDICAL REFORM ESSAYS.—*To the Editor.*—Sir,—Allow me, through the pages of your valuable Journal, to inform those who forwarded prize essays to the Medical Reform Association, that the number of the essays has prevented any decision being as yet arrived at; but that the decision will now soon be declared.

JOHN EPPS, M.D.,
Hon. Sec. to the Medical Reform Association.

89, Great Russell-street,
Nov. 5, 1834.